H N R I 7 N N

NISSAN ARIYA THE DESIGN OF AN ICON





4

EDITOR'S LETTER

Matthew Weaver, Vice President at Nissan Design Europe, introduces Ariya

8 THF (

THE GENESIS

How do you go about defining a vision for the future of mobility?

18

TIMELESS JAPANESE FUTURISM Discover four dimensions of design

24

IN CONVERSATION

What makes designers tick?

30

THE DESIGN DIARIES

Learn more about the talented people at the heart of Nissan Design Europe

38

UNSUNG HEROES

Clay moulders, digital modellers, and VR experts. We asked some of these experts a few quick-fire questions about their role

40 THE INSIDE LINE

Discover how the worlds of technology and design seamlessly come together to enhance the lounge-like experience of Ariya's interior

46 DESIGNING E

DESIGNING ELECTRIC MOBILITY Matthew Weaver explores how electric vehicles will shape the future of mobility

54 CLOSING THOUGHTS

A united vision and new chapter for Nissan



EDITOR'S

| THERE'S A NEW ERA ON THE HORIZON: MATTHEW WEAVER, VICE PRESIDENT AT NISSAN DESIGN EUROPE INTRODUCES ARIYA - A NEW CHAPTER FOR NISSAN AND ITS VISION FOR AN ELECTRIFIED FUTURE. |

Many thanks for joining me in our exploration of the secret of innovation. For me, innovators are people who look beyond the horizon. They see the limits of what we know and have the urge to look beyond: to discover more; to find and create the new. It's as if they are going on a road trip into the unknown; the further they travel, the more they help us to discover.



"For the inventors and designers crafting and reshaping our world, it's the journey that provides the inspiration"



"True innovation isn't possible without the environment that supports and encourages that type of thinking"

For the inventors and designers crafting and reshaping our world, it's the journey that provides the inspiration. That's why we have called this magazine Horizon. It maps the journey of discovery undertaken by an incredibly talented group of engineers and designers. They were set a challenge: don't explore in little steps, don't stay within any familiar, comfortable boundaries. Instead, we asked them to go on a road trip that would take them well beyond the horizon, into the unknown - to create and craft a car that advances Nissan on its path to an electric and autonomous future. A car that will go completely beyond our customers' expectations.

We're also transforming our company. True innovation isn't possible without the environment that supports and encourages that type of thinking. The result of this journey of discovery is Ariya, Nissan's first all-electric coupé crossover. In this magazine I want to capture the passion, the detail, and the creativity behind this gamechanging vehicle. You'll see the challenges encountered and the opportunities grasped. So, let me invite you to step into Nissan Design Europe in the heart of London and meet some of the diverse, multi-cultural team of designers, engineers and craftspeople who played a leading role in plotting this journey. They worked closely with many of their fellow Nissan innovators in Japan, including Senior Vice President of Global Design, Alfonso Albaisa, and Senior Design Director Giovanny Arroba, all united in one vision – looking beyond the horizon to bring Ariya to life.

Enjoy the ride! Matthew





THE GENESIS



| HOW DO YOU GO ABOUT DEFINING A VISION FOR THE FUTURE OF MOBILITY? WHAT'S IT LIKE TO START WITH JUST A FEW TECHNICAL PARAMETERS AND THEN, AS A TEAM, REIMAGINE THE CAR AS A LIFESTYLE SPACE? THREE OF THE PIONEERS BEHIND ARIYA'S ICONIC DESIGN EXPLAIN THE CREATIVE PROCESS THAT TOOK NISSAN'S NEW ELECTRIC COUPÉ CROSSOVER FROM SKETCH TO REALITY. |



Lesley Busby, Colour Manager Nissan Design Europe

"We're always thinking three to four years ahead," says Lesley Busby, Colour Manager at Nissan Design Europe. "We're looking at new technologies, start-ups, new business cases – until we understand what will make consumers choose a car in the future." With Ariya however, this presented a bigger challenge than usual – but also offered an unprecedented opportunity. That's because this time the starting point was Nissan's all-new electric vehicle platform. For Design Manager Chetan Chohan it was "a total game changer" that allowed the team to push beyond any known horizon. With the traditional engine gone – in a car with a combustion engine, the powertrain runs through the centre like a chunky spine – the team could rethink the whole interior of the car and reinvent it as a living space. After all, it's the first impressions that counts, says Busby: "How do we want the customer to feel when they open the door of this new premium electric car for the first time?"





14

0

15 mm + 1 - @ @)

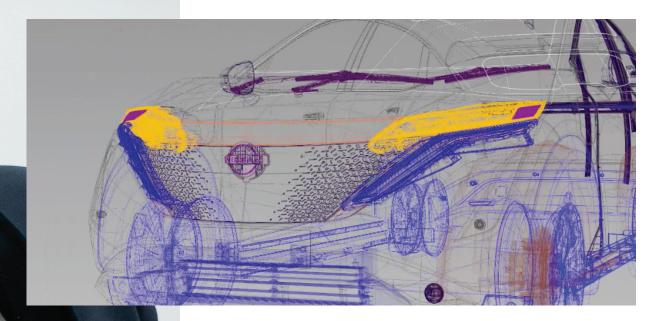
"When automotive designers and engineers begin to develop a new car, they truly must invent the future"

-11-

HORIZON

0

Chetan Chohan, Design Manager, Nissan Design Europe -12-





As is customary for global design projects, the team in London had to compete against all Nissan studios around the world when preparing their styling proposal for Ariya. "We all came up with our own interpretation of the brief, but Nissan Design Europe has established itself as a centre of crossover excellence thanks to our work designing two generations of Qashqai and JUKE, so we felt we had great insight and experience to bring to this project," Chohan remembers. "The team within Nissan Design Europe is incredibly diverse, that's why we were able to come up with so many striking proposals which had a big impact on the initial design for Ariya."

Once London had received the go-ahead for its design approach, the team began to work closely with the Japanese engineers who had developed Nissan's new electric vehicle platform to see how far the designers could push their ideas and make them work within the parameters of the engineering. "We spent a few months in the development process, which was very much technology-driven; we were looking at the future of electric vehicles," says Busby. Next, the team tried to rethink how drivers and passengers might interact with "technology that takes a real step into the future. It was really exciting to be involved in something that is very clean and pure and uses new technologies and materials."

-13-



Of course, the London team did not start with a completely blank sheet of paper. 'Our two main drivers were the technology and the Japanese DNA of Nissan," Busby remembers. It was this heritage that informed Ariya's final look; Japanese artisans are known for their attention to detail, their mastery of intricacies and their patient pursuit of perfection – traits that Nissan's Europe-based design team sought to both honour and emulate.

Along with Senior Vice President of Global Design, Alfonso Albaisa and Senior Design Director, Giovanny Arroba, the Nissan Design Europe team and Nissan Global Design Centre worked in harmony, pooling their creativity to give Ariya a distinctive blend of Japanese philosophy and sleek, modern craftsmanship – a design ethos that Nissan calls Timeless Japanese Futurism.

To get it right, the team deeply immersed themselves in Japanese culture, says Alessandro Messale, one of the designers at Nissan Design Europe. "We had an opportunity to travel to Japan and really experience the country, the culture and the architecture. It inspired us to create a new living experience for motorists and to create something that has never been done before. It's not just about styling the car; it's about creating an experience for drivers and passengers the moment they enter the vehicle."



Alessandro Messale, Designer, Nissan Design Europe

-15-

"Every single detail has been carefully pondered, refined, and brought to life"

For Chohan, who himself had previously lived in Japan, the result is a car that successfully combines "European and Asian perspectives".

After the cultural immersion, it was time to brainstorm. "All the designers come up with visual aids or keywords as a starting point for us to start sketching theme ideas," says Chohan. "Then we narrow them down, because there's so many, and from this point on we start to develop visuals on the computer."

"This design process – from the idea to the sketch to the final model – takes roughly three to four months," says Messale, for whom Ariya was his first project working for Nissan. After the first digital versions, the team used clay and a state-of-the-art five-axis milling machine to precisely create the first physical model. That's when "collaboration with the engineering team is very important because without the feedback from engineering, the design is unrealistic as ultimately, it's all about ergonomics," says Messale. Customers need to feel instinctively that "everything is designed around them." It works, says Busby, because all departments are "working closely together with a shared vision – not least the countless artisans who build and programme the concept from an idea into a physical reality."

What followed was a process of constant iteration: more and more data, information and functionality was poured into the car, while the designers simultaneously worked on reducing the visibility of this complexity to a pure and simple design. It was a combined effort from Nissan Design Europe and the Nissan Global Design Centre, with both teams working closely together to design a vehicle that is truly representative of Nissan's next chapter.

Messale is extremely pleased with the result: "The production model is really close to what we designed. To see the technologies that we proposed in real life, it is absolutely fantastic." So, when you sit down in Ariya, behind the steering wheel, look around you – every single detail has been carefully pondered, refined, and brought to life. "For me," says Busby, "the Nissan Ariya is the vision of the future."





タイムレス ジャパニーズ フューチャリズム

-19-

TIMELESS JAPANESE FUTURISM

Discover four dimensions of design

| DESIGN IS AN ART FORM. FOR ARIYA, THIS IS DEEPLY ROOTED IN JAPAN'S CULTURE OF INTRICATE ARTISTRY AND CRAFTSMANSHIP |



間

MA

Mastery of empty space by respecting the construction

Ariya's interior is all about space. Reimagining the potential of emptiness, the design is based on the concept of Ma which creates a lounge-like experience. It starts with the opening up of the flat floor due to the car's new EV platform and continues with the haptic touch controls and sleek lines of the instrument panel. Thin-profile Zero Gravity seats amplify the sense of spaciousness. Ma evokes a sense of intrigue, freedom, and performance.





粋 IKI Cutting edge / Concise Newness

Defined by the philosophy of Iki, Ariya's shape has an obvious elegance and freshness to it. From the first moment, this car asserts its cutting-edge aesthetic. At the front, the smooth surface of Ariya's intelligent shield protects the sensors of its ProPILOT advanced driving assistance technology. This design approach extends to the cabin, with two 12.3-inch display screens integrated in the dashboard, smoothly embedded within the interior design's clean lines



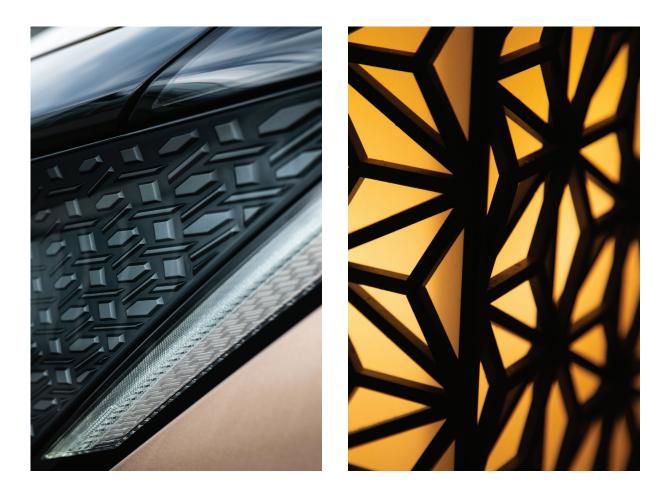


ANDON

The art of paper lanterns, creating a sense of warmth and welcome

Ariya may be defined by its futuristic technology, but it is built around the needs of humans. That's why the lighting of the interior space is inspired by traditional Andon paper lanterns, with their warm and relaxing glow. The result is a sense of comfort, calm and tranquillity, with soft highlights that give it a feeling that is more akin to a living space and a home, than a car.





組子

ΚυΜΙΚΟ

The art of creating an intricate pattern technique to assemble wooden pieces

Japanese artisans are well known for the elegance and craftsmanship of their designs as demonstrated by the Kumiko pattern that can be found both inside and outside Ariya. The result is an infusion of traditional Japanese artistry with modern design cues. Take the detailing on the intelligent shield at the front of the car - this speaks to Nissan's Japanese heritage but blends it with the new illuminated V-Motion signature for a fresh design feel. Inside, the distinctive Kumiko pattern covers the Andon interior lighting and gently boosts the feeling of warmth.



IN CONVERSATION

| WHAT MAKES DESIGNERS TICK? WE SAT DOWN WITH MATTHEW WEAVER AND CHETAN CHOHAN, WHO ARE TWO OF THE KEY INNOVATORS WHO SHAPED ARIYA'S DESIGN |







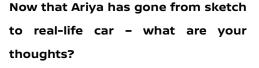






"We had a vision for how cars should be powered, driven, and integrated into society and Ariya is the purest representation of this of any of our vehicles"





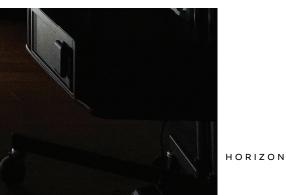
Matthew Weaver (MW): Oh, it's great to see a car like Ariya come to life. It's our most advanced car and it combines two things that we are really good at: electric vehicles and crossovers. For me, Ariya is not just our hero vehicle, it's the best one out there – combining these two elements in a compelling and exciting package. We had a vision for how cars should be powered, driven, and integrated into society and Ariya is the purest representation of this of any of our vehicles.

THE OWNER WITH THE PARTY OF THE

Chetan Chotan (CC): Ariya's new platform is so unique that it has completely changed the architecture of the interior and what we could do with it. When you sit in the vehicle, you'll notice immediately that this car is different to any you've been in before.

Where did the name 'Ariya' come from?

MW: Oh, that's a very ancient word. It's fascinating how it appears in historical texts in many different languages like Sanskrit and Pali. It means noble, dependable and something to be respected. At Nissan, we always try to find a name that reflects the character





of the car, and with Ariya I think the name fits like a glove. Personally though, when I hear the name, I think it feels airy and light and captures the experience of driving it.

How did electrification change your approach to designing the car?

MW: From the start, I knew it would have to be different because this was going to be a purely electric vehicle. This meant the aerodynamics of the exterior had to be super-efficient. We also had a flat floor and smooth surfaces everywhere meaning we could design something that feels very seamless. We paid a lot of attention to achieving a harmonious look – as if the car just cuts and slices through the air. CC: On the inside, it's all about space. Everything feels much lighter as we could use a space that was not built around technology; for example, we moved the air conditioning unit into what usually would be the engine bay. As a result, we had all this openness to play with and created something that is more like a living room. We left all the constraints of the traditional car structure and architecture behind. We were able to truly focus on the design and explore how we could capture this new dynamic feeling of driving an electric vehicle. To design this from scratch, without much precedent - this was one of the biggest challenges but also one of the most fun and exciting aspects.











THE DESIGN DIARIES

A DAY IN THE LIFE OF





CHETAN CHOHAN

DESIGN MANAGER, NISSAN DESIGN EUROPE

Lead designer Chetan Chohan tells us how his childhood love of cars turned into a lifelong passion.

The backstory

When I was young, I was always fascinated by cars. When I went to college and then university, no one was surprised that I studied transport design. I've been passionate about car design all my life.

My day-to-day

I'm the Design Manager for interiors at Nissan Design Europe. I'm leading a small, but very passionate team. We work on the interior design all the way from its concept to production. With car design, you always have to think four, five years ahead of time, and innovate and push the boundaries, as we've done with Ariya.

My inspiration

We obviously always look to try to create something new and come up with alternative ideas. We're encouraged to follow the avenues of our imagination and exploring trends and different dynamics. That's what I'm enthusiastic about. It starts with a spark, and that can come from anywhere... galleries, workshops, bars, clubs, anything really.

My proudest career moment is...

With every car, we are at the cutting edge of design, so right now it's obviously Ariya – especially because on the inside, we were really able to start from scratch and create a new design language for Nissan.

My role in designing Ariya...

My role is to keep the team together, to bundle ideas, to inspire people - from the first brainstorms to initial sketches to the first models. All of us were really excited because we were giving shape to a new generation of electrification. And I really love the dynamic in my team. There is a designer on our team, Alessandro, he's just joined us straight from university, and he was so motivated and there was such a synergy between the existing team and him, this was really exciting and mesmerising to watch.



-33-



LESLEY BUSBY

COLOUR MANAGER, NISSAN DESIGN EUROPE

Colour matters, says Lesley Busby as she tells us what inspires her when helping to design cars like Ariya.

The backstory

I've always been interested in art ever since I was a child. But I never thought I could or would make a career out of it. And now, here I am and I'm really, really enjoying it.

My typical day

Everything in a car has colour – every surface, whether it's inside or outside. My job is to suggest which colours and colour combinations work best in a car; do they reflect the spirit of the car? And because colour choices are important everywhere, I work with all the teams at Nissan Design Europe and in Japan - whether that's product planning or marketing. Every day brings its own challenge and that's the fun bit.

My inspiration

We're based in London, and that is an inspiration in itself. I'm surrounded by so many things that change every day; it motivates and gives me a fresh perspective all the time. Just on my way to work I get so many different and diverse ideas; it works almost subconsciously. This rich tapestry of experiences is invaluable.

My role in designing Ariya...

To communicate quality, you have to pay close attention to colours and materials. For the Ariya, we developed two new colours: copper, which is our key colour, and a new Aurora green that has a special pigment which flips between green and purple. We always look at what the latest technology can deliver for body colours, and both the copper and the green give an almost electric feeling to the car, they exaggerate the form. The copper, by the way, can also be found inside Ariya, a beautiful, horizontal line that gives the interior a sense of both width and warmth, and is also in harmony with the exterior.

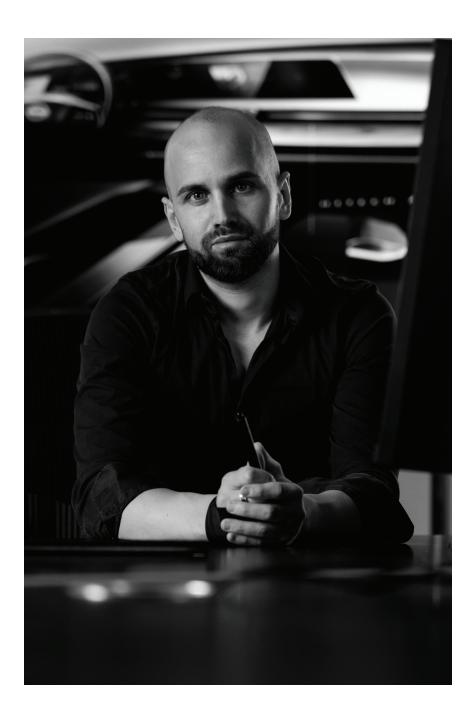
My proudest career moment

There is always a difference between the original design and the finished product. But to see how much from our ideas here in London are now going on the road in Ariya, that is quite amazing.

The importance of colour

For me, colour comes first, before shapes and forms. Colour brings things to life, it expresses emotions. I could not live in a black-and-white world; that would be such a sad place.





ALESSANDRO MESSALE

DESIGNER, NISSAN DESIGN EUROPE

Principle designer Alessandro Messale tells us how he brought his love of art, drawing and technology from Italy to London.

My backstory

I studied design in Italy and joined Nissan Design Europe here in London five years ago, just before the work on designing Ariya got under way. What a great moment to pursue a career in car design!

My work looks like...

My role is to generate and sketch ideas. I then work with the digital or physical team to bring these ideas from a 2D sketch into a 3D model. We express our ideas in a real physical model that can be touched. I'm still fascinated every single time I see an idea that I sketched on my computer screen take on a shape for real. And it's also fun to work with all the teams – the designers working on exterior and interior design, the colours, and all our colleagues in Japan

My inspiration...

Oh, that's difficult. Can I say... "everywhere"? I love art, I love to draw, but I'm also passionate about technology. With Ariya, I found it fascinating to mesh Japanese philosophy and concepts of craftsmanship with high technology to create something that is pure and seamless.

My proudest career moment is...

Ariya was the first project I worked on at Nissan

Design Europe. I'm proud that this has been part of my career journey, especially so early on, not least because Ariya is really going to shape the future of Nissan.

My role in designing Ariya was...

I was a principle designer on Ariya, so I oversaw the sketch creation, from the digital to the physical stage of the design process, and worked with the Japanese team when we were concerned whether a design could actually be taken into engineering and manufacturing.

This was the first car design I was involved with and I was blown away by the attention to detail, that was truly immersive. My favourite part of the interior is the surface; how it creates both a feeling of warmth yet features such cuttingedge technology. I think the secret is the design's simplicity and seamlessness, how surfaces wrap around the entire interior to create this amazing atmosphere.

Seeing Ariya on the road will feel like... it's going to be a powerful emotion. I can't really explain exactly what it is, but it will be amazing and extremely exciting to share with my friends and family that I worked on that car.



UNSUNG HEROES

| CLAY MOULDERS, DIGITAL MODELLERS, AND VR EXPERTS - MANY PEOPLE ARE CONTRIBUTING TO THE DESIGN OF A CAR. WE ASKED SOME OF THESE EXPERTS A FEW QUICK-FIRE QUESTIONS ABOUT THEIR ROLE IN BRINGING ARIYA TO LIFE |

Your name

Michael Ledger

Your role Clay Modeller

In a nutshell

I create models from clay, so I help the designers to create models of future concept cars – both in fullsize and on smaller scales. My job is essentially to interpret 2D sketches and renderings and translate them into a physical form that can be assessed in the real world, in real time.

Shaping Ariya

I helped the designers not just to give their vision a physical shape, but also helped them to stay within the limits of what's feasible from an engineering standpoint.

Ariya and you

A model is still only a model. It's a concept. With Ariya, we've stayed really close to the original design, and I when I see the first one on the road, I will remember the days when I created the first full-scale models.



Your name

Steve Ransom

Your role

Digital Modeller

In a nutshell

I transfer the designer's sketches into 3D digital models – I take the vision and give it a digital shape.

Shaping Ariya

The beauty of working for Nissan Design Europe is that the roles blend into one another on all sorts of interesting projects. Ariya was very much one of those. I worked closely with the designers, colour team and clay sculptors. Later during Ariya project, I moved into a new role of creating VR content, which gave me the freedom to design my own storyboard for the VR experience that helped us present Ariya concept to around 100 Nissan colleagues for the first time.

Ariya and you

Ariya is a whole new way of looking at a car. The way it starts with a new electric mobility platform that delivers such an exciting and immersive driving experience...as a tech fan I can't wait to drive one.



Your name

David Mason

Your role Quality manager

Quality manager

In a nutshell

Oh, I get that asked a lot, what is the "Perceived Quality team": We work with all the creative teams on concepts, technologies and experiences that are 6-10 years away from reaching our customers. It's our job to enhance the design quality for vehicles in development. We make sure the car feels right for its time when it finally comes to market – in terms of the material, construction, and operation quality – anything that engages the senses, really.

Shaping Ariya

Consumers' perceptions of what

constitutes 'quality' are always shifting. For Ariya, we knew that things like usability, efficiency and sustainability would be key. For example, very early in Ariya's development, I led a design study to blend aerodynamics, aesthetics, and seamless construction. We developed and tested around 30 unique proposals, all designed to enhance the sleek and advanced exterior design impression.

Ariya and you

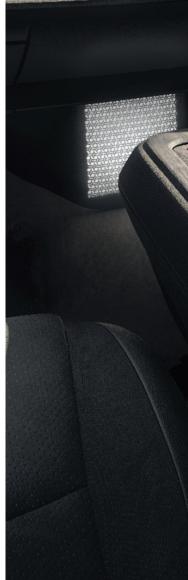
During development I had a sense this car was going to be something special. I can't see a competitor product right now that delivers so much on the potential of EVs like Ariya. This car will define the future of mobility in the same way that the Nissan Qashqai defined the crossover segment back in 2006.



THE NORTH

| DISCOVER HOW THE WORLDS OF TECHNOLOGY & DESIGN SEAMLESSLY COME TOGETHER TO ENHANCE THE LOUNGE-LIKE EXPERIENCE OF ARIYA'S INTERIOR |

When you sit down in an Ariya, the first thing you will notice are the screens, welcoming you to the experience. Whether you are a driver or a passenger, you will know instantly that this car is different. Its design heritage hails less from previous cars. Instead, the inspiration comes – maybe unexpectedly – from something unique. "If there's one thing you notice about people nowadays, it's that we all want everything in one place," explains Marco Fioravanti, Vice President, Product Planning at Nissan Europe. "The perfect example is your smartphone. You want it to be easy-to-use, to have lots of features – but you want it to be sleek. In every sense, it's a practical design statement."





And just as the smartphone is now the tool to seamlessly tap into your work and personal life, the interior of a modern car now has to have the same ease-of-use and bring together similar functionalities – way beyond merely operating the vehicle. The team had to meet the high expectations of the tech-savvy car drivers of today.

"Ariya is the start of a new chapter for Nissan," says Fioravanti. "It is powered by an advanced electrified mobility platform, so we needed to develop a car that is a partner in people's increasingly busy and connected lives." The technology team understood the challenge at hand: "Whether you are a driver or a passenger - when you sit in Ariya's interior you must have a beautifully designed and seamless connected experience."

Given a blank canvas to design the Human Machine Interface (HMI), the technology and design teams around the world took up the challenge. "I distinctively recall the rooms

"If we wanted to re-imagine the interior space, we needed to look beyond traditional car design and ask ourselves what exactly people need inside the car"

in Japan and Nissan Design Europe," says Fioravanti. "They were quite literally a world away from each other, but they were both equally bursting with ideas. I remember how drawings from the first brainstorms covered the walls. Everyone's exciting ideas just kept on coming."

Narrowing down the canvas was the next challenge. "If we wanted to reimagine the interior space, we needed to look beyond traditional car design and ask ourselves what exactly people need inside the car."

Nissan's technology experts had to rethink how people interact with a car – so that they can use the full potential of Ariya's technology while also driving safely and using the car as a hub for everyday life. "Ariya's NissanConnect infotainment system was designed to blend with a person's life; it's just as comfortable and familiar as your home. Passengers can stream music, browse the internet with in-car Wi-Fi, check the weather, schedule calendar dates









"The design is simple, easy to interact with, and beautiful – just like Ariya's lounge-like interior"

and charging times for the car, and integrate their smartphone.

With the teams at Nissan Design Europe and in Japan working closely together, the engineers and designers crafted two beautiful, curved 12.3-inch display screens. Like a television, these are positioned so everyone in the car can see them, shared equally between the driver and front passenger. This is not a car driven by tablet.

"It couldn't be easier to use these screens. With a few simple swipes, the passenger can, for example, move a new navigation to the driver's screen or choose what music to play. The experience is truly integrated in every sense. Every feature of NissanConnect, every facet of the screen shape and size – it all has a purpose. The design is simple, easy to interact with, and beautiful – just like Ariya's lounge-like interior."

All of this advanced technology, however, had to be tailored for the human touch. "If you sit in a car, you don't want to work your way through sub-menus to find basic controls like the AC, that's why haptic buttons have been used to maintain a clean and simple design," explains Fioravanti.

The way the haptic buttons have been integrated, drivers will see that they are an extension of the digital display. They aren't visible when the car is switched off but light up when you start the car. And that's where the beauty of simplicity by design begins.■

DESIGNING ELECTRIC MOBILITY

| MATTHEW WEAVER EXPLORES HOW ELECTRIC VEHICLES WILL SHAPE THE FUTURE OF MOBILITY |

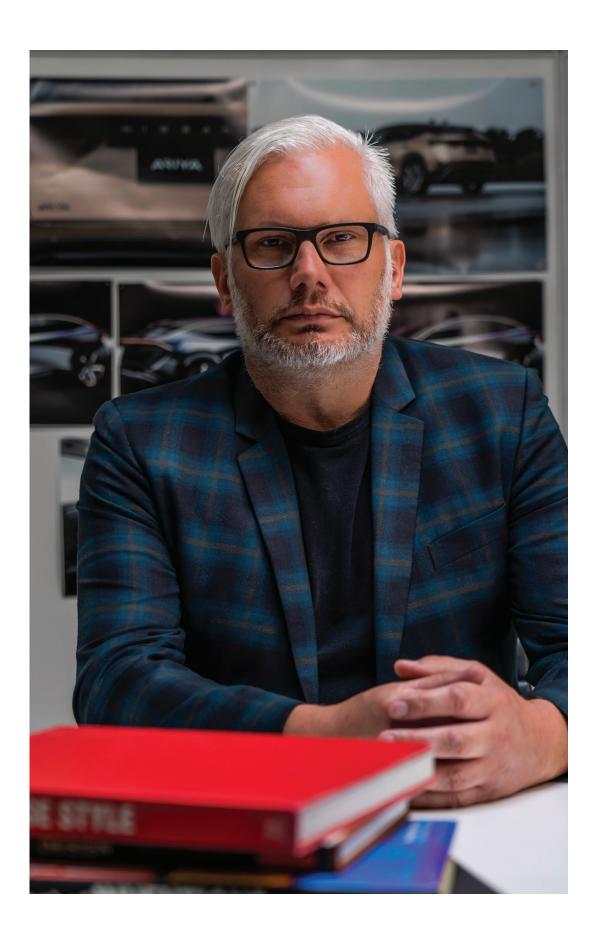


More than a century ago, if you'd asked people what kind of vehicle they wanted, they would have demanded faster horses and better suspension systems for their carriages. Little wonder that the first automobiles looked very much like horse-drawn carriages and hackney cabs – just without the horses. Quite quickly though, the engineers and designers building the first few generations of automobiles realised that they had to reinvent mobility.

When we started work on Ariya, it was immediately clear to me that the shift ahead would be just as dramatic. Ariya is more than the crossover concept redefined. As designers, we had to come up with a completely fresh take on what is essentially a 100-year-old equation. With Ariya we had to reinvent or at least rethink many of the fundamentals of automotive mobility.

Looking back at the development process, here are my five takeaways on how electric vehicles will shape the future of mobility.

1. Aerodynamics: We've made such significant shifts when it comes to the technology under the skin of the car that one key job for the exterior design team was to make sure that it's still super aerodynamic, like a blade through the air. Aerodynamics are quite like a dark art – if you change an element on one part of the car, you may end up changing the aerodynamic characteristics somewhere else considerably. Our aerodynamics teams had to constantly challenge everyone to make sure our fresh designs are invisible to air resistance.





2. Rediscovering the interior: On the inside, Ariya is as spacious as a large car, even though the exterior remains quite compact and nimble. This is thanks to the flat floor above the battery packs and the fact that we don't need to build the car around the transmission parts attached to a traditional internal combustion engine. We were able to build the interior on top of what we jokingly called the 'magic carpet' of the EV platform. We also moved the large air conditioning unit found in most cars to the front, where you would usually find the combustion engine and again, that freed up a huge amount of space for the occupants. So when it comes to designing the interior of electric cars, this is now not anymore about creating space for five or more occupants. Instead, we will have to create spaces that feel more like a lounge than a passenger compartment.

3. Intuitive controls: Electric vehicles, and soon autonomous cars, are ultimately powered by data. Most people don't realise how much cutting-edge technology can be found in a car like Ariya and that's how it should be. A key task for designers of electric vehicles will be to make using them absolutely intuitive, with a minimum number of controls. Some 100 years ago, most car drivers had to be a bit of car mechanic as well. We won't see a repeat of this. You don't have to be a programmer to enjoy the full power, fun and convenience of an EV. Designers have a clear task: the controls of an EV should be simpler to use than any smartphone app. And with the design of Ariya, we have brought a warmth to this experience. This car feels like an intelligent creature that is full of welcome and care.



4. Creating calm: Design is about so much more than looks. It's the whole driving experience that must deliver a feeling of calm. Nissan Intelligent Mobility solutions – with all the systems that assist drivers – must be designed so that they create a sense of relaxation in the cabin. To put it bluntly: don't freak out drivers. There is an art to crafting this interaction between humans and their cars. However, there's even more to this: the silence of travelling in an electric car is also a powerful concept to draw upon; it provides inspiration for defining clean, crisp surfaces, while the sense of calm helps us create a high-tech interior.

5. Blend with the digital life: Designers love to say that their work is 'human-centric'. That's the right approach, but with electric vehicles, we really have an opportunity to rethink the meaning of the concept. In an electric vehicle, the idea of seamless 'connectivity' and 'communication' becomes very real. Drivers and passengers can truly integrate the car in the surrounding world and blend it with their own digital life. When we approach the design of a new electric vehicle, we must consider the customer and their daily life and then look at what the car can do to aid that in any way possible. So on Ariya, when you're still at home, you can set the car up through an app - set your destination, music, where to charge and so on – and when you return home, while you are still in the car, you can turn on the heating at home, the air-conditioning, or even the lights. The car doors open automatically when you approach, then the safety systems act as your guardian – all of this is what Ariya can do today, so just imagine what will be possible tomorrow!

I think we are about to enter the most transformational period in personal mobility. We're pushing the architecture of what a car can be even further thanks to exponential progress in technology and engineering. So, if you're an automotive designer, you just know that your most exciting years are yet to come.



CLOSING THOUGHTS

-054

| A UNITED VISION AND NEW CHAPTER FOR NISSAN -FROM SENIOR VICE PRESIDENT FOR GLOBAL DESIGN, ALFONSO ALBAISA |

Ariya has been a passion project and I loved working on it for the past years. Seeing all the new technologies materialized in one vehicle is very special. It embodies the next level of electrification, connectivity, and philosophy for Nissan.

The brief was tricky and yet we managed to reflect the real spirit of what we call Timeless Japanese Futurism. Nissan's global studios including Nissan Design Europe helped define the initial design studies for Ariya with the creation of sketches, digital drawings, clay models and VR renderings. You can read the amazing stories of these team members in the pages of Horizon. Our global team in Japan refined it to give to the world this fantastic production model.

Ariya's seamless and sleek design is nothing like we've imagined before. It has turned vehicle design upside down. Most other cars have kept same the architecture, but we have fundamentally changed the way we live with and inside a car. It's where style and technology meets in perfect harmony. What you see today has been achieved through the dedication and passion of our teams from around the globe. Its design is an accumulation of several differing ideas and opinions taken from a multi-cultural team of designers, engineers and craftspeople around the globe and brought together in Japan. Our teams became united and were excited by a single vision – that Ariya is the start of a new chapter for Nissan. I can't wait to see people's reaction when it hits roads.











FOR MORE DETAILS ABOUT ARIYA, PLEASE VISIT

WWW.NISSAN-EUROPE.COM