魂動

KODO : SOUL of MOTION

mazda Design

CONTENTS

■ INTRODUCTION

50 YEARS OF PASSION

When Mazda released its first passenger car, the R360 Coupe in 1960, it quickly gained recognition for its minimalist form and great practicality. For Mazda it opened a new chapter in the company's history as a builder of passenger cars. For Japanese consumers, the R360 Coupe realized their dreams by making such a desirable car affordable.

Since then Mazda Design has consistently aimed to distinguish itself with its unique personality. At Mazda, design goals go beyond the usual practical focus of industrial design and instead set out to evoke a sense of excitement and expectation in all who see or drive a Mazda. Underlying this approach is the simple fact that every Mazda designer is fundamentally passionate about cars. As such, their aim is to breathe life into their designs and endow them with true emotional character. The goal is to create designs that communicate Mazda's design vision with people around the world. It is this design philosophy that has challenged Mazda designers to continue chasing perfection for half a century.

Now 50 years on Mazda Design is entering a new phase. By exploring the meaning of 'the passionate drive' Mazda design seeks to discover which vehicle form represents the ultimate Mazda persona. This exploration underpins the vision for the coming new generation of Mazda products.

Photo: Antoine Thibault

■ *DESIGN HERITAGE*

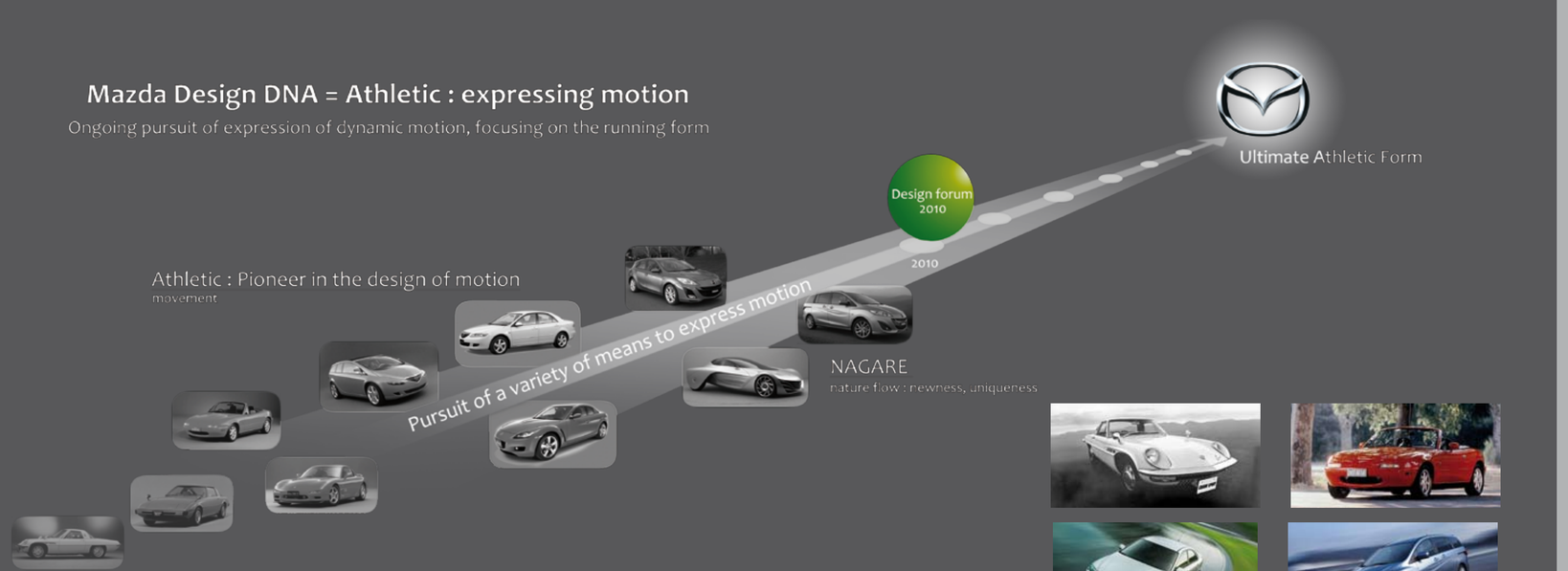
A PASSION FOR MOTION

The movement that began with the R360 Coupe and continued through the 1970s represents Mazda Design's formative years, during which time Mazda began to establish a unique design language. Representative works from this era include the futuristic styling of the Cosmo Sports 110S and the clean, simple lines of the original RX-7; lines that were designed to highlight the dynamic performance of the rotary engine that powered it. As these efforts took shape a uniquely sporty character evolved that became synonymous with the Mazda brand.

Approaching the second half of the 1980s, Mazda gained an even stronger desire to create cars with an almost living emotion. This desire developed into a fusion of functionality and beauty which resulted in the kind of delicately controlled surfaces and emotional form that gave birth to cars like the Mazda MX-5 (Mazda Roadster in Japan). The MX-5 was to redefine the meaning of the lightweight sports car and was to become the embodiment of pure driving pleasure around the world. This message continued with the 3rd generation Mazda RX-7 (Enfini RX-7 in Japan), which further enhanced the appeal of a rotary engine sports car.

'Motion' in design turned heads around the world

As the year 2000 arrived, Mazda design focused on athletic and sporty 'motion' as a design theme for the new millenium. This design theme reflected the evolving design language



while supporting the newly introduced Zoom-Zoom brand message. Mazda's designers aimed to excite Mazda owners and observers. It was a design language intended to encourage people to literally fall in love with Mazda cars and the notion of driving pleasure. The first design of this period was the Mazda6 (Mazda Atenza in Japan), followed by the Mazda RX-8 and other models. The strategy was well received and these cars won a variety of prestigious automotive awards, as well as earning high acclaim.

This design theme of athletic and sporty 'motion' continued with the development of the Nagare (Flow in Japanese) design philosophy. The Nagare design language reflected the beauty of nature as expressed by natural movement. By cleverly incorporating character lines inspired by nature into vehicle forms – such as wind, water, sand dunes, lava flows and other naturally moving elements – Mazda Design pushed its exploration of the beauty of natural 'motion' to exciting new levels. Under the Nagare design theme, Mazda introduced seven concept cars and ultimately saw the new Mazda5 put this theme into production reality.

The next step gaining momentum, a more powerful 'motion'

Mazda design has continually produced cars with captivating lines which capture the essence of 'motion'. By refining the lessons learned from Nagare and adding a more structured and dynamic sense of 'motion' to Mazda's design language, a new expression is evolving that will ensure every design is instantly recognizable as a Mazda.

■ *IKUO MAEDA, MAZDA´S GLOBAL HEAD OF DESIGN*

CARS AS A FORM OF ROMANTICISM

A new design era begins from the man who reformed sports car and compact car design. Ikuo Maeda, General Manager of Mazda's Design Division, is the man behind the latest chapter in Mazda design beginning with its latest concept car. Maeda led Mazda's design team in the construction of the new design concept car and its form springs from his passion and determination.

Ikuo Maeda was chief designer for the Mazda RX-8, which marked a breakthrough in four-seat sports car design with its rotary engine and pillar-free four-door body. He was chief designer for the Mazda2, the 2008 World Car of the Year, which redefined the compact car through weight reduction. He's also an enthusiastic racer and has the same passion on the track as he has at the drawing board. Ikuo Maeda is a second-generation Mazda designer. He continues the same Mazda spirit demonstrated by his father Matasaburo Maeda who participated in the design of several Mazda passenger cars. In 1978 Matasaburo Maeda, who managed the design of all Mazda cars at the time, led the design development of the original RX-7. Later when Mazda formally established its Design Division Maeda was its inaugural manager.

What was inherited from the man who designed the original RX-7?
During his high school years, Ikuo Maeda became fascinated by design when his father gave him a satin-finished stainless steel paper knife designed by Enzo Mari. As Maeda puts it, "It felt as though I was touching something from the hands of a designer for the first time. Putting just a subtle twist in the material turns a simple blade into a functional and beautiful item. I was immediately impressed by the realization that I was holding something that had been designed well and immediately I understood what design was all about." It was no coincidence that Matasaburo was hard at work developing the design of the Mazda RX-7 at the time.

IKUO MAEDA VOLUNTEERS A STATEMENT

"As the person charged with leading Mazda design, and considering how the next generation of Mazda designs will evolve, I decided to return to my original belief that a car is not simply a product of industrial design, but rather a machine that deserves to be cherished. 'A machine that deserves to be cherished' is not simply the expression of a car enthusiast. There are few products of industrial design that can be compared to living entities which convey energetic motion and which invite affection. It is this intrinsically emotional appeal of the car that I wish to express when creating Mazda cars."

Matasaburo reflects on this period: "I had three design priorities for the RX-7 which dictated its completely natural form. First, I was seeking the best way to express the character of its rotary engine. Second, I was aiming to reduce the car's drag coefficient and third, I envisioned the RX-7 as having the classic sports car front-mid-ship layout."

Twenty-five years later, the RX-8 – developed under the direction of chief designer Ikuo Maeda in 2003 – was released to the car world as a new sports car for a new age. It was the worthy successor to the three generations of RX-7. As Ikuo tells it, the RX-8 design was driven by the fundamental concept of the car itself. "The only way to accomplish a sports car with full four-seating capacity was to incorporate the 'freestyle four-door' configuration without centre pillars. There is a fundamental reason behind each design decision on this car, and it's important to keep this in mind."

Listening to father and son talking confirms that the true spirit of Mazda design is being faithfully continued from one generation to the next, just as famous models are succeeded by new generations. Ikuo's words lend insight here; "My method of expression differs greatly from that of my father. Still, I'd say that I inherited some of my father's fundamental design principles when it comes to form possessing meaning, and in the pursuit of forms that maximize the mechanical potential of the car."


魂動
KODO : SOUL of MOTION

■ *DESIGN THEME*

'KODO – SOUL OF MOTION'

Throughout its history Mazda Design has explored various forms that depict 'motion'. In recent years, this has been fused with the graceful beauty found in movement in nature, in wind and the flow of water, to realise a unique design expression for Mazda.

Mazda's creative approach is now evolving. The underlying design philosophy for the next generation of Mazda cars is adding the power and beauty that one sees in the instantaneous movement of animals or humans. This is the form displayed in the moment motion begins – for example the instant when a cheetah pounces on its prey, or the moment of a sword strike in the ancient Japanese martial art of kendo. It is this moment where accumulated force is released that contains the most finely-honed balance of strength and streamlined beauty. It is in this instant – which requires maximum concentration – that we feel instantaneous power, speed, a dignified tension, a sophisticated beauty – it is, in its way, highly seductive.

Mazda has positioned this instantaneous movement, filled with vitality and the stirring of the emotions, as the ultimate form of motion, and has defined it as 'KODO'. KODO will be incorporated into all Mazda designs, to express a faster, more forceful movement, and to include a more soulful element. This is embodied in the design language of 'KODO – Soul of Motion' and it represents the next generation of Mazda design.

Keywords: Speed, Tense, and Alluring

Speed: Vehicle form conveys speed and looking at the car awakens a wild instinct to want to drive this machine. A machine which is an expression of speed with power.

Tense: The form generates a finely-honed sense of tension, of the moment just as motion begins. A form that is refined, without waste and which embodies the spirit of Japanese simplicity.

Alluring: A quality feel that conveys depth and sophistication, expresses craftsmanship, and invokes the human touch of a product made by hand.

We aim to combine these three value elements to form 'KODO – Soul of Motion'.

SHINARI 靭
Design Concept

■ CONCEPT CAR MAZDA SHINARI

MAZDA SHINARI – FAST AND STRONG MOTION THAT STRIKES THE HEART

The Mazda SHINARI is a pure design concept model of a four-door, four-seater sports coupe which perfectly expresses the 'KODO – Soul of Motion' design theme in a graceful and carefree form.

The Japanese word shinari describes the powerful yet supple appearance of great resilient force when objects of high tensile strength, such as steel or bamboo, are twisted or bent. It also refers to the appearance of a person or animal as it flexibly transforms its body to generate a fast movement. Within this movement, Mazda designers discovered the potential to realize 'KODO – Soul of Motion'.

One glance at SHINARI stirs the emotions. Its form expresses the powerful movement of a lean body with highly developed muscles, supple but at the same time filled with tension. Mazda's desire is to reach car lovers' hearts and go beyond the notion of rational logic. This form purely embodies that desire.

Designer's challenge

Yasushi Nakamuta, the chief designer who led the design of the third generation Mazda MX-5, was the first to begin the ideation of the SHINARI concept: "The challenge for us was to create an innovative new expression for energetic and powerful movement; something that we had never attempted before. We began by developing the design around the image of a predator, as it strikes at its prey, or the stabbing movement in kendo, Japanese fencing, to express the instant where accumulated force is released".

Translating this initial moment of 'instantaneous movement' being pursued by Mazda design into the SHINARI concept car presented various challenges to both the designers and the modelers working on the project. The process involved a series of activities that saw the team draw inspiration from a variety of places. This included each team member creating sketches and freely sculpting models from clay to represent their own perceptions of 'KODO – Soul of Motion'. It then continued with the exploration of the functional beauty seen in traditional Japanese crafts and the motion witnessed in Japan's ancient martial arts.

As the team continued this exploratory process, Nakamuta focused on a force so powerful that it can bend a strong section of steel plate. The Mazda SHINARI design adds subtle twists and tension to create forms that express agile and powerful movement, resulting in the expression of 'KODO – Soul of Motion'.

Exterior – unbridled expression of agile movement

With an image of strength emanating across every panel and component, the Mazda SHINARI looks ready to leap at any second. The strong backbone running through the body, the sudden release of pent-up energy, and the interplay of beautiful, supple movements – this form is the expression of all of these elements.

The appearance of the A-pillar, which tapers towards the rear of the body, the shape of the cabin, the front fender; these and SHINARI's other elements combine to create proportions that suggest the instantaneous release of energy to propel the car forward.

The distinctive front fenders represent the further evolution of the prominent fenders introduced in the RX-8. They emphasize the front wheels and accentuate the dynamic movement expressed in the side of the body, in a style that is both sporty and elegant. Character lines flow rearward from the front fenders and meet those traveling forward from the rear fenders in a multi-layered effect. This fusion creates an appearance that suggests a forceful sense of tension with a graceful beauty.

All of SHINARI's body surfaces appear as if constantly undergoing transformation. There is no static shape to be found, as if the car is in perpetual motion. For instance the subtle control of the angle of the upper surface of the side sill, from the front to the rear, results in a form that suggests a flash of speed along the body of the car.

The three-dimensional sculpting of the front grille proudly emphasizes the Mazda lineage. A powerful line of movement originates at the grille and continues through the bonnet, fender, front lamp modules and bumper. In particular the floating bar – which links the grille with the headlights – is a three-dimensional expression of speed, an accent that represents a new signature element for Mazda. For the headlights, Mazda's designers have created a headlamp structure with no outer lens, exposing the deep-set lights and suggesting the eyes of a wild animal about to pounce on its prey.
Aerodynamic performance was a major priority for SHINARI, and the centre of the lower sections – on both the front and rear bumpers – are designed to optimize the flow of air along the underbody of the car. The flared line that connects the front bumper with the side sills and rear bumper, fulfils a similar role and streamlines the flow of air along the body, while further contributing to the aerodynamic performance of the car.
The outer mirror, wheels and tailpipes accentuate the sense of agility and lightness and convey a hand-made feel with a human touch which contributes to the impression of superior, premium quality.

For the body colour a luminous metallic blue has been chosen to convey an image of hard metal. The strong yet elaborate brilliance of the highlights combines with the clearly defined contrast of the shadows to create a balance between the sharp, three-dimensional form and the appearance of surfaces bending and transforming; a balance which was a design objective. The fierce, bright flash of the forged steel of a Japanese sword is combined with wisdom and sensuality to express superlative quality.


SHINARI

Interior – Exploring a new approach of oneness between car and driver

When creating the SHINARI concept interior Mazda's objective was to design a distinctive premium cockpit that incorporates its interior DNA. While the exterior design can be appreciated through motion, the interior, meanwhile, is experienced in a static, seated position. A commitment to essential mechanical function and excellent ergonomics has created a driver focused interior that embodies the 'ultimate athletic space' while expressing a sense of speed inside the vehicle.

Entering the vehicle your eye is immediately drawn to the driver focused cockpit which surrounds the driver. Its angle and surface movement sets the tone for the whole of the interior. The highlight of interior is a surfacing between the upper and the lower instrument panel which is contrasted by crisp surface edges and precision mechanical details. Interior craftsmanship is characterized by the use of bright trim work integrated along the cockpit's perimeter and accentuating the sensation of speed. An authentic application of materials including machined aluminum, soft natural leathers and the precision design of instrumentation and controls, gives the interior an alluring quality that exceeds expectations.

Craftsmanship meets total car control

Mazda design wanted to re-define the proximity of the driver to the instrumentation and controls by establishing intuitive 'reach zones'; what Mazda calls 'dedicated driving ergonomics'. All instrumentation and controls have been designed and positioned to enhance the driving experience. By separating the instrument panel into two individual zones, the driver cockpit is isolated from the rest of the interior and allows the driver to focus on the task

of driving. To reinforce the message of driver orientation, the design of the primary and secondary instruments echo the main cockpit shape, to provide a clean uncluttered view from the driver's seat. Seated behind a thick-rimmed, three-spoke steering wheel the driver sits within a uniquely contoured seat, providing maximum comfort and support.

The principle of 'dedicated driving ergonomics' is further reflected in the car's next generation Human Machine Interface (HMI). The availability of smaller electronic components has allowed SHINARI's designers to create a floating HMI three-dimensional display; a design element that represents the very latest HMI technology. The system offers three distinct modes: 'Business, Pleasure and Sport'. The Business-mode enables the driver to stay connected to his work day tasks. In Pleasure-mode, focus is on comfort and entertainment, allowing the driver to tailor the interior mood creating a relaxed atmosphere. In Sport-mode the driving set-up is changed; the paddle shifter is activated, suspension settings are tuned for performance driving, and controls are simplified allowing the driver to focus solely on the driving experience.

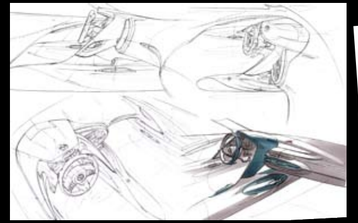
The main dashboard surfaces are positioned low, and away from the occupants, creating a unique sensation of openness. The HMI interface and the dedicated seating controls for the front seat passenger represent a new level of detail and functionality for a Mazda premium interior. Even though the interior volumes have been rearranged in this way there is a high level of sportiness to enhance the feeling of driving dynamics. SHINARI represents the profound connection of driver and machine and the beginning of Mazda's latest design theme 'KODO-Soul in Motion'. SHINARI exhibits a functional aesthetic that will continue to evolve as Mazda continues to define its next generation of vehicles.

The quest for a Mazda original and a Japanese original

With SHINARI as the first step, Ikuo Maeda, general manager of Mazda's design division, aims to create original Mazda designs that will be recognized around the world. He summarizes his resolve in the following words:

"My goal is to create designs that people can point to proudly and say, 'This is a Mazda design'. There is no need for Mazda to build cars for people who are only concerned with 'style' and 'trends'. Whether working on sports cars or compact cars, I have always worked to create designs that evoke an emotional response in people and I hope to keep doing the same as I remain fully committed to develop designs for people who love and admire cars. It is my personal belief that the only way to create designs that fundamentally connect with people and to create designs they love, is if the people creating them are absolutely passionate about cars and are willing to make that passion a firm policy for design expression.

"Further, I consider it vitally important to have an awareness of Japanese originality in designing cars for Mazda. This is not merely about incorporating traditional Japanese elements into car design. I believe in reflecting the Japanese spirit in car designs as part of a subconscious practice. So, while I consider where this may lead in the future, my plan is to create cars that will be instantly recognizable as a Mazda, even when viewed at a distance. My ultimate goal is to create a brand presence that car lovers around the world recognize as representing both Mazda originality and Japanese originality. Future Mazda's will move people physically and emotionally – this is 'KODO – Soul of Motion'"



■ GLOBAL DESIGN TEAM

THE ZOOM-ZOOM SPIRIT INFORMS ALL OF MAZDA DESIGN

Mazda Design comprises four global design studios – located in Irvine, California, USA, Oberursel, near Frankfurt, Germany and Yokohama and Hiroshima, Japan – which all operate under the guidance of Ikuo Maeda, General Manager of Mazda Design Division.

Each of Mazda's four design studios play a vital role in feeding ideas for production and concept vehicles globally, back to headquarters in Japan. Similarly, each of the studios focuses on the creation of products for their local markets. In Irvine, Mazda's North American design studio works on vehicles and concepts for North America, under the daily direction of Director of Design Derek Jenkins. In Oberursel, Design Chief Peter Birtwhistle's European R&D studio focuses on vehicles and concepts for Europe. Meanwhile in Yokohama, Japan at Mazda's Design Strategic Studio – under the guidance of Chief Designer Yasushi Nakamuta – energy is mainly directed on advanced design and researching on future trends. But the local studios don't only focus on local markets, in fact the process of design ideation is far more global, and the multinational nature of Mazda's design teams means each centre is capable of generating designs for other regions. For example, in practice it is not unheard of for a European concept design to be generated in Irvine and Oberursel before being developed and built in Hiroshima for launch at a key European motor show. Mazda's latest concept vehicle – SHINARI – has an exterior which was designed in Japan, while the interior design was created in the MNAO studio in Irvine, California, USA.

All ideas are fed back to Ikuo Maeda at Mazda Design's headquarters in Hiroshima which guides overall global design strategy and engineering integration. In recent years, advances in communication and computer-aided design and visualisation technologies have meant that designers in one region can continue the design development of a vehicle when designers from a different region have left for the day. All teams worldwide are able to update and synchronize product designs in real time, if so required. The result is that each of the studios is effectively globally-focused but with local expertise. This leads to a healthy environment of competition within the global design team. At the same time an openness ensures efficient working processes get the job done, while a sense of teamwork exists that extends far beyond geographical borders.

Mazda Headquarters and
Design Center, Hiroshima , Japan

Mazda European R&D and Design Center,
Oberursel, Germany

Mazda Design Strategic Studio,
Yokohama, Japan

Mazda Design Center, Irvine, USA

Each studio works in three different areas: creating concept cars, contributing to the development of production vehicles and evolving Mazda's future design strategy. The latter element of the team's design work – which can be summed up by attempting to answer the question of 'where are we headed and what do we need to do to get there?' – is crucial to Mazda's business, reflecting the innovative spirit that lays at the heart of the company. This willingness to try new things has seen Mazda become a materials and technology leader, constantly striving to make cars that are more exciting, more efficient, lighter and cleaner than their predecessors, and which continue to exhibit Mazda's stylish, spirited, and distinctive design. This harmony between driving pleasure and environmental and safety features lays at the heart of Mazda's long-term technology development vision called 'Sustainable Zoom-Zoom'.

Mazda's design headquarters in Hiroshima, which is located geographically closest to Mazda's advanced engineering and production facilities, usually has the strongest focus on the design and development of production vehicles. The Hiroshima studio is equipped with virtual visualisation technologies, including a large digital display for design work using life-size vehicle images – called a 'Power Wall' - to help advance the digital design process. In practice, this means that the other three studios have the most time available to generate concepts and to undertake other exploratory work, in parallel to their contribution in the development of each new production model's design.

■ MAZDA DESIGN PEOPLE

IKUO MAEDA, GENERAL MANAGER, MAZDA DESIGN DIVISION, MAZDA MOTOR CORPORATION

Ikuo Maeda has been the General Manager of Mazda Design Division since April 2009. Maeda leads Mazda's global design team and is ultimately responsible for the overall design and styling of Mazda's global product offerings as well as Mazda's concept vehicles, vehicle prototypes and special vehicles. He manages Mazda's four design studios from his base in Hiroshima.
A veteran of 28 years at Mazda, Maeda has a truly global design experience. He joined Mazda's Product Planning Department in April 1982 after earning an Industrial design degree from Kyoto Technical and Textile University. By 1985 Maeda was in charge of advanced design at Mazda's Yokohama Design Studio. Following a three-year work assignment at Mazda North America beginning in 1987, he held a succession of prominent design positions before a placement at Ford's Design Studio in Detroit, Michigan in 1999.
Prior to his appointment as General Manager, Maeda spent almost 10 years leading the Design Strategic Studio at Mazda's world headquarters in Hiroshima, Japan, where he was in charge of production design. During this time he was Chief Designer of the highly acclaimed Mazda RX-8 and Mazda2 (Demio in Japan) programmes.

Ikuo Maeda lives in Hiroshima. His key interests include, mountaineering and motor sports, where he is currently participating in touring car racing.

Peter Birtwhistle, Design Manager/Chief Designer R&D Centre, Mazda Motor Europe

Peter Birtwhistle is chief of design for Mazda's European operations. He is responsible for overseeing the design and development of concept and ideation for production vehicle programmes for Mazda in Europe and is based at Mazda's European research and development centre in Oberursel, Germany. Responsible for the design contribution from the world's most competitive and challenging car market, Birtwhistle leads an international team of designers.

Birtwhistle joined Mazda as a senior designer in 1988, was promoted to Chief Designer in 1990 and has been leading Mazda's European design operations since 2000. Before joining Mazda, Birtwhistle was assistant exterior studio chief designer at Porsche, and a studio designer at Audi and Vauxhall. In the more than 20 years Birtwhistle has spent at Mazda, the Oberursel studio has made important contributions to numerous production and concept programs including: 323F/Lantis coupe, concepts for the Xedos range of cars, Premacy van, last generation 323 and 626, first generation Mazda6, first and second generation Mazda3, third generation MX5, Mazda6 MPS, Mazda5 and the show concepts Neo-Space, Sassou, Hakaze, and Kiyora.

Birtwhistle studied automotive design at the Royal College of Art, London.

His hobbies include cooking, travel, painting, motor sport and fishing.

Quick Interview

What does 'design' mean to you?

Design is everywhere and a good designer is constantly taking in things around him wherever they go. So it's preferable that whatever you look at has to have a reasonable sensitivity about it; it doesn't matter what you're looking at, it's better for it to be attractive. That's basically what design is, and as a designer it's a huge responsibility. For companies like Mazda, it's really important because we don't have a well-known heritage like some other brands in Europe, even though we have been in business for 90 years. This is why we need cars that look good! I think Mazda has been very successful at that.

What are your major artistic influences?

Obviously I'm passionate about cars and I tend to focus on the automotive landscape in terms of visual influences – I love historical aircraft and modern jet planes. Or it could be boats, indeed anything that moves, anything mechanical inspires me.

I like the work of Phillipe Starck. These days most companies have such strong design houses that it's difficult for an independent designer to really make a name for himself. Starck has done that. In terms of modern architecture; I like the work of Norman Foster, Renzo Piano, these kind of architects. I'm often reminded of Renzo Piano because he designed the airport in Osaka (where I often fly on the way to Hiroshima), which is like a huge wing of a plane, which is very appropriate. As an Englishman, my favourite car is the E-Type Jaguar. I read the other day that Enzo Ferrari said that it was the most beautiful car ever made. It was styled by Malcolm Sayer, an aerodynamic expert. And it was in a way more of an aeronautical form, a very natural and honest streamlined form. It was just naturally beautiful, as if it was the way nature had intended it to be, like a shark; as if it had evolved.

Regional character:

The location is an aspirational environment in terms of German car culture. For Mazda, the location here is central within Europe in terms of drawing inspiration from all European cultures. Germany takes its cars very seriously. Germans take a huge interest in cars and the automotive industry is very much entrenched in the culture here. It's a very automotive environment. The studio is also involved in testing and Germany has a fantastic range of road conditions, from the autobahn to mountain roads, which are ideal for testing cars specifically for Europe. We are easily accessible logistically to move models and prototypes to and from Hiroshima because of our close proximity to the airport.

How do you define the 'Japanese-ness' of Mazda's design?

Behind Mazda design is a nimble and efficient and unbureaucratic company which means the vehicles remain the absolute focus. Mazda can react quickly due to its size. I believe that this focus is ultimately reflected in the design of Mazda vehicles. It is essentially Japanese, but quite uniquely Mazda.

How do you start when commencing a design from scratch?

In the time that I have been with Mazda I believe we have established a look that is recognizably Mazda. We have fundamental details such as the five-point front end graphic and the positioning of the brand symbol. On top of this we then apply the key features for our present design generation. Recently we have adapted the flowing feature lines inspired by the Nagare concept cars. We build these concepts not only to motivate but also to guide our designers in one direction throughout the organization. This is fundamental at the beginning of the design process. Additionally, packaging requirements dictate that it is often pretty clear what direction will we head in at the outset. I encourage my designers to first sketch as many side views of the vehicles based on the package information. The way a vehicle is viewed directly from the side is key when establishing the balance of the design. Once they have established good balance and proportion, then they can start to move on to the details.

How do you imagine (Mazda) cars in 20 years' time?

New lighter-weight materials will be much more prevalent and the whole way that a car is constructed is going to change greatly. Advances in materials – particularly plastics – will see complex parts and systems simplified and even eliminated. For example, wheels and tires may become one single unit. The ability to form single components with areas or different stiffness may lead to simpler suspension systems. The entertainment systems in cars will be much more linked to the mobile devices that the owner has with him. All this will mean greater weight and energy savings. This lays at the heart of Mazda. As concept designers we need to be aware of what's coming and be intelligent and create very clever solutions for future challenges.

Mazda 323F

Mazda Sassou

Mazda6 MPS concept

Derek Jenkins, Director of Design, Mazda North American Operations, Mazda Design Division

Derek Jenkins is director of design for Mazda North American Operations (MNAO) and is based at Mazda's North American design and research and development centre in Irvine, California, USA. In this role, he oversees all design developments, including exterior and interior design, colour and materials, accessories and Mazda's overall design strategy for North America. Jenkins spearheads both global and local production programs as well as concept vehicles and special models.

A veteran designer – with more than 16 years experience – Jenkins joined Mazda directly from his former position as chief designer for Volkswagen North America. Prior to his tenure with Volkswagen, Jenkins spent eight years with Audi, serving first as lead exterior designer, followed by assistant chief designer for Audi Design.

Jenkins is credited with numerous concept and production vehicles including the Audi A2, A8 and Volkswagen Scirocco concept. Other key accomplishments include the Volkswagen Microbus Concept, Volkswagen Ragster Concept, Volkswagen Concept T, Volkswagen GX3 and SEMA concepts from 2005 through 2008. Jenkins also played an integral role in the design of the Kobe Bryant Signature Adidas basketball shoe.

Jenkins holds a Bachelor of Science from the Art Center College of Design, Pasadena, California. He resides in Malibu, California, USA. His key interests include surfing, snowboarding, running, working on and restoring cars, and studying many forms of art and design.

Quick Interview

What does 'design' mean to you?

It is a key responsibilty of a designer to create vehicles that people connect with on an emotional level. When a particular car design makes that fundamental link with the viewer it can stick with them forever. This is why people often associate cars with certain past memories or positive life experiences.

These memories can shape people's tastes and likes and dislikes going forward and even influence future buying decisions. Personally I have no doubt that such connections and memories influenced me at a very young age and ultimately led to my current career path. For me design can be enjoyable and exciting as well as sometimes very difficult and challenging. For these reasons I find design to be very personally rewarding.

What are your major artistic influences?

My favourite car designer would be Giorgetto Giugiaro. He really represented true innovation during a very progressive period in design, in the late 1960s through to the late 1970s. The vehicles from this period really laid the groundwork for some of the modern car proportions that are still relevant today. I loved the LP400 Lamborghini Countach as a child and it still looks like it landed from another planet and I admire the Porsche 911 because sometimes the Countach can be a little over the top.

Also I take a great deal of design influence from living in and around Los Angeles and Irvine. Southern California is often criticized for not having any permanent or established culture. For example, I find that the true culture of Los Angeles is the culture of constant change, without limitations. I find this to be a very inspiring environment and one that embraces new and individualistic ideas. This holds particularly true in the areas of art, fashion, lifestyle trends, technology, and of course the automotive scene. And though it may be becoming a cliché, the iPhone® has to be one the significant and culture changing inventions in my adult life. And it too was designed in California.

Regional character:

In North America Mazda is truly perceived as a very emotional and young brand. I find this to be a real advantage for us and one that we should continue to maintain and evolve.

How do you define the 'Japanese-ness' of Mazda's design?

I think with the philosophy of 'KODO – Soul of Motion' we can take Mazda emotion and brand appeal to an even higher level. To this end I think we have to pay close attention to maintaining our young consumer base through expressive design while adding sophistication to give those buyers something to aspire to as they move through life. I feel this approach to design will be essential for Mazda's future success in North America.

I believe cars are often a strong reflection of the country and people by which they were created. I can think of no better automotive brand to symbolize the style, ingenuity, passion, and dedication of the Japanese culture than Mazda. I feel Mazda has consistently shown these attributes over several generations of vehicles and I am certain that we can continue this with our next generation of products under Maeda- san's design leadership.

How do you start when commencing a design from scratch?

All great car design starts with great proportions. To be able to influence the vehicle architecture from the beginning is the ideal opportunity from the designer's point of view. Architecture refers to the general height, width, wheelbase, overhangs, wheel size and position that ultimately dictates a vehicle's basic proportions. Once this is established the designer has a much broader design taste range possible, knowing a solid proportion has been established. For this reason sports cars are often the basis for more daring and expressive styling exploration as opposed to starting with a vehicle that has less appealing proportions.

How do you imagine (Mazda) cars in 20 years' time?

I can imagine a future for Mazda design that will allow far more personal involvement of the customer. Possible innovations in technologies such as rapid manufacturing, personalized paint and printing choices, open sourcing, and virtual reality will all allow the consumer to have a closer connection with Mazda's designers. I think consumers could ultimately play a direct role in the final creation of their personal vehicle. For me this takes the idea of the emotional connection to the car to an even greater level.

Yasushi Nakamuta, Chief Designer, Design Strategic Studio, Mazda Design Division

Yasushi Nakamuta is Chief Designer of Mazda's Design Strategic Studio in Yokohama, Japan, responsible for the advanced design and concept cars.

Though Nakamuta's most celebrated work was as Chief Designer of the 2007 NAIAS show car Ryuga, and Mazda's highly successful third-generation 2006 MX-5 Miata, he has had a hand in many of Mazda's most significant vehicles since he joined the company in 1987.

He was Chief Designer of Secret Hideout, Mazda's concept car for the 2002 Tokyo Motor Show, Chief Designer of the Mazda2/Demio in 1996 and before that Chief Designer of the Xedos9/Millennia, Demio/121 Metro programmes in 1992. Nakamuta also worked on the design for the 2nd generation MX-5/Roadster in 1989 and the interior design for Eunos500/Xedos6 cars in 1987, as well as the exterior and interior design of the 3rd generation RX-7, one of the most celebrated Mazda vehicles of all time.

His global experience includes a period in the Advanced Design Studio at Mazda's North American Operations in Irvine, California.

Yasushi Nakamuta was educated in industrial design at Kyushu Sangyo University, Faculty of Fine Arts, Industrial Design Department, Japan.

Quick Interview

What does 'design' mean to you?

For me, 'design' is a fusion of three elements: art, technology, and business. To put it another way, it is the expression of emotion and functionality that has not existed before, as a new value proposition, and the incorporation of that new value into products that resound with the customers.

What are your major artistic influences?

Sori Yanagi's butterfly stool has a simple, beautiful and at the same time functional shape, and is completely well conceived including its materials and even the way it is crafted. I feel this is the model of industrial design.

As a child I was stunned at the sight of the Corvair Monza GT – a car that I was given as a present from my father – when I was in elementary school, and I decided that I was going to be a car designer. This was because of its sporty, beautiful shape and its futuristic functionality which was something I had never seen before.

Regional character:

As the Yokohama Advanced Design Studio is located next to the Tokyo area, it is easy to obtain information on next-generation environmental and IT-related technologies, as well as new trends among young people. It is a great, stimulating environment for designers to create from.

How do you define 'Japaneseness' in design?

I sense 'Japaneseness' in design is a concentration of all kinds of things including functionality and beauty. A strength of the Japanese is the ability to develop designs or shapes that eliminate any excessive ornamentation and communicate the beauty and soul of what is hidden within. For example, personally I believe that only the Japanese are capable of developing a vehicle like the MX-5. For the first MX-5, it was necessary to get rid of any waste and properly express the functionality of the car as part of the design. For the third-generation MX-5, which I was in charge of, although there were, physically, many different elements added, we designed the car so that such physical functionality would not be evident. I was focused on the concept of 'Japaneseness' when designing that model – if I did not have that focus, it may have become a more muscular or gaudy design. I think that the MX-5 was well-received because it was made with a focus on 'Japaneseness'.

One other type of 'Japaneseness' is found in young people's culture. I believe that manga comics and anime cartoons are things that are only found in Japanese culture. I love manga comics and read them every day and I can really empathize with the incredible manga comics that depict robots and other futuristic themes. I understand why young people get hooked on them.

How do you start when commencing a design from scratch?

When I am told to design a completely new car, first of all I draw it. Sometimes the shape of the car is created as I am drawing it. Shapes that I've been thinking of, shapes that I like or want to try out, subconsciously take shape via my hand and my eyes. When I'm involved in a project, I look for visuals that I want to be inspired by. For example, when we were creating the third-generation MX-5, I looked for visuals that expressed the keywords of 'friendly' and 'fan'. And these were not necessarily images of cars but people's faces and other things. I analyzed why a certain face looks friendly. It might be the softness of the expression on that face, or it might be the eyes turning down – I thought about the elements that come out from that image. Is it colour? Is it light? Is it shape? I think about these things myself, build up the image and then start drawing. I don't know why, but I start drawing the front face of a car after developing an image based on the theme of 'face'. When I'm drawing the side proportions, for the MX-5 – when I imagined weight reduction based on the feeling of nimbleness – I came up with the image of 'fluttering'. And then using the visual of a leaf, I expanded on that image. I am the type of designer who expands on images using visual material.

How do you imagine (Mazda) cars in 20 years' time?

I think that cars will be significantly different. There will be continuing emergence of new environmentally-friendly energies, converted to electricity, at the same time as dramatic developments in IT, to incorporate amazing forms of information into cars. The way cars are built will also be different. It will become easier to build cars and although the car-like essence will not change, I imagine that Mazda keep building cars that people feel affection for, while incorporating all the coming new technologies.

Mazda MX-5

Mazda Ryuga

Mazda Secret Hideout

R360 Coupe (1960)
The R360 Coupe was Mazda's first passenger vehicle. Its 2+2 cabin was enclosed in a stylishly functional coupe form that represented the cutting-edge of Japanese car design. The car combined appealing design with an affordable price in an era when owning one's own car was still a dream for many; upon its release became a huge hit.
The R360 Coupe model represented a new page in history, not only for Mazda but also for passenger cars in Japan.

Luce Rotary Coupe (1969)
The Luce Rotary Coupe equipped a hardtop coupe body with the new and exclusive 655cc x 2 rotary engine. With maximum output of 126hp and a top speed of 190km/hour, this was the first time that the front-wheel drive layout was adopted to utilize the rotary engine's compact size to maximum benefit.

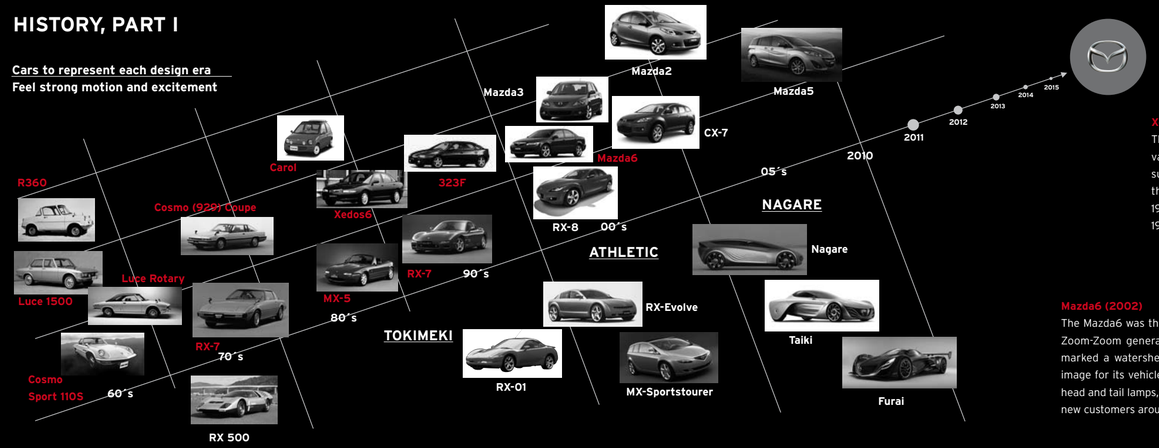
RX-7 (1978)
With its low, sharp front form characteristic of the front mid-ship engine positioning, daringly low wedge-shaped body optimized for aerodynamics and glass hatch back, the launch of the Savanna RX-7 was met with global acclaim. This model was extremely successful in motorsport leading to 100 wins in IMSA competition in the United States. Up against rivals including Porsche's 911 and Nissan's Fairlady 240Z, the car's achievements were unprecendented

Luce 1500 (1966)
Based on an original Bertone design from Italy, the 'A-line' style of the Luce 1500 – due to the shape formed by the three pillars in the front, centre and rear – was adopted by Mazda's designers who enhanced its form with a unique Mazda flavour.
This modern, elegant design conveyed a dazzling individuality that exceeded the general level of styling of Japanese cars at the time and was in keeping with the name LUCE, the Italian word meaning 'light' or 'shine'.

Cosmo Sport (1967)
The Cosmo Sport – the world's first mass produced model with a dual-rotor rotary engine – was unveiled to the world at the Tokyo Motor Show in October 1963 and went into production in 1967 after years of intensive tests. Mazda's president at the time, Tsuneji Matsuda, amazed onlookers when he drove into the motor show venue in a prototype of the car. The Cosmo Sport combined gorgeous, futuristic proportions with superior drive performance and truly embodied the words 'it feels more like flying that driving'.

HISTORY, PART I

Cars to represent each design era
Feel strong motion and excitement



Cosmo (929) Coupe (1981)
The second-generation Cosmo was launched in 1981 and was equipped with the world's first turbo-charged rotary engine. To optimize its aerodynamic design, the car was equipped with four-lamp retractable headlights, a low bonnet and a thin radiator grill. The drag coefficient of this two-door hardtop was just CD = 0.32, giving the car the best aerodynamic performance in the world at the time.

MX-5 (1989)
Commercial sales of the MX-5 began in America in the spring of 1989. From launch, the MX-5 sold at rates that far exceeded all expectations. The popularity of the Roadster was not simply a success for Mazda – it also became the trigger for other car manufacturers around the world to launch sports car convertibles. Lightweight sports cars had disappeared for a period during the 1970s, and the MX-5 model was the main player in the segment's revival at the end of the 20th century.

Xedos6 (1992)
The car was developed on the theme of 'Lasting Value' – value that will never fade – with the focus placed on superior quality and sophistication. In a poll of readers by the German industry magazine Auto Motor und Sport in 1993, Xedos6 ranked first for 'Best Cars in the world in 1993' in the mid-size import car category.

Mazda6 (2002)
The Mazda6 was the start of the success story for Mazda's new Zoom-Zoom generation. Modern, sporty and dynamic, the car marked a watershed moment for Mazda and embodied a new image for its vehicles. In all its three body styles, the aggressive head and tail lamps, the taut lines and the sporty cockpit seduced new customers around the world.

Carol (1989)
The Carol's minimalist micro-car format was combined with the same adorable and appealing design of the original Carol from 1962. Together with a range of different variations including the turbo and canvas-top versions, the car gained a broad popularity base.

RX-7 (1991)
The 3rd generation RX-7 (FD) saw a dramatic leap in dynamic performance, and also embodied a 'gram strategy' of comprehensive weight reduction. At the same time, this model adopted an alluring and enticing style, based on the concept of 'Beauty in the Beast'. The previous two generations of the RX-7 had built a strong presence for the model as a high-performing yet affordable sports car.

323F (1993)
The 323F, with its crouching form which could be likened to a sprinter just about to run a race, appeared on the market with, what was at the time, the world's smallest V6 engine (2.0) for a mass-produced vehicle. This was a sporty compact car with superior motion performance, distinctive form and outstanding safety features, and promoted by Mazda as a 'four-door coupe'.

RX-8 (2003)
At launch in 2003, the Mazda RX-8 coupe represented an impressive evolution of the rotary-engine sports car from the only company in the world to make them. Its dynamic and sporty design, unique centre-opening doors and room for four – along with a cleaner-running, more compact naturally-aspirated RENESIS rotary engine – made it a big hit with sports car customers around the world.

Mazda3 (2003)
The second model of the Zoom-Zoom line-up, the Mazda3 was the heir to the very successful 323 generations, bringing a fresh look to the compact segment with a very dynamic and athletic design in both body types; hatchback and sedan. The cockpit look was perfect for the sporty driving feel of the car. A few years later it would be topped by the high-performance MPS version, the fastest Mazda ever, with 250 km/h top speed.

CX-7 (2006)
The Mazda CX-7 is a crossover vehicle that combines high-performance power with 260 PS, a sporty design, SUV functionality and comfort. Developed using the MX-Crossport concept car (2005 Detroit Motor Show) as a starting point, the CX-7's silhouette is dominated by an aggressively-raked windscreen angle of 66° which is even more extreme than on many sports cars. This is combined with a sweeping roofline, kick-up belt line and large, powerful fenders over 18-inch alloy wheels, giving the car an aggressive road stance.

Mazda2 (2007)
The 2007 Mazda2 car ended the trend towards larger and heavier automobiles, weighing 100 kilos less than its predecessor. It's a revolution that led to lower fuel consumption and CO2 emissions, better performance and handling and nimbleness. The car's dynamic design reflects these qualities and along with its other numerous assets resulted in the sub-compact Mazda winning the 'World Car of the Year' award in 2008.

Mazda5 (2010)
The all-new Mazda5 refines the winning recipe of its predecessor. Its exterior styling stands out of the crowd in a generally 'boxy' C-MAV segment, integrating Nagare design elements for the first time in a production vehicle, while its functionality still benefits from two sliding rear doors with a very large opening, generous leg room for seven passengers and high levels of seat flexibility called Karakuri. It features new powertrains including the 2.0 DISI with Mazda unique stop and start system called istop.

CONCEPT CARS

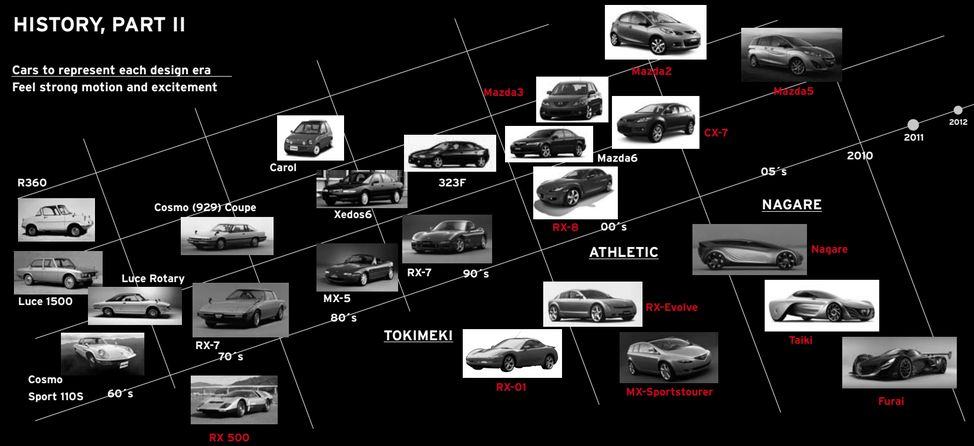
RX-500 (1970)
The RX-500 was the first concept car from Mazda which featured a rotary engine. Named in commemoration of the 50th anniversary of Mazda's establishment, the RX-500 was displayed at the Tokyo Motor Show in 1970. With a top speed of more than 200 km/hour, butterfly-wing doors that rotated upward to allow entry and exit, and tail lamps in three colours of green, yellow and red, the innovative concept attracted widespread attention.

RX-01 (1995)
The RX-01 was shown at the Tokyo Motor Show in 1995 and was also equipped with a rotary engine. This model's unique form, including its short and wide proportions, was characteristic of the MSP-RE (multi-side port rotary engine) layout. The car had a dry sump lubrication system an extremely slanted nose and aerodynamic wing and was well-received.

RX-EVOLVE (1999)
This was the RX-8 concept car announced at the Tokyo Motor Show in 1999. It was equipped with the newly-developed rotary engine, RENESIS, and was a completely new four-seater sports car. At the time the model already sported an advanced package and design, but for the production version Ikuo Maeda, chief designer of the RX-8, led the way in further refinement work to give the design a feeling of even greater dynamic sensation.

HISTORY, PART II

Cars to represent each design era
Feel strong motion and excitement



Nagare (2006)
The Nagare concept gave its name to a series of concept cars inspired by nature. At the time Mazda's designers were simply exploring potential surface language and vehicle proportions that would begin the evolution of Flow. Most impressive of all were the two long butterfly doors that moved forward and up to enable access to the four-seat interior. With a centrally-located driving seat and wraparound lounge-effect rear seating, Nagare managed to combine driving dynamics and interior function all in the one innovative package.

Furai (2008)
The Mazda Furai concept (Japanese for 'sound of the wind') debuted at 2008 North American International Auto Show. It was created at Mazda's studio in Irvine, California to blur the boundaries between road car and weekend racer to create an actual functional race car. On Furai, Nagare's 'flow lines' actually enhance the vehicle's aerodynamic performance, by channeling and directing the airflow over Furai's body surface. Its ethanol-fuelled, three-rotor rotary engine produces 450 HP at 9,000 rpm.

MX-Sport Tourer (2001)
Displayed at the 2001 Geneva Motor Show, the MX-Sport Tourer featured double doors and a vario-lamella roof that slid open accordion-style. This concept car struck a balance between the convenience of a wagon and the dynamic design of a sports car. The interior featured rear seats that could be stored away with a single push of an electromagnetic switch and an extensive fully-flat load area. The concept ultimately led to the Karakuri seat arrangement adopted in the Mazda6 and Mazda5

Taiki (2007)
The most futuristic of all the Nagare concepts, the Taiki is a sports cars designed for a sustainable society, exploring weight-reduction and aerodynamic technologies in a bid to improve fuel efficiency and reduce CO2 emissions. Taking its inspiration from the Earth's atmosphere, the groundbreaking stretched-coupe form with its front-engine rear-wheel-drive layout, short overhangs and all-glass canopy, was designed to visually express air flow which can be seen in everything from its surface treatment to its complex but beautiful wheel arches and wing-like tail.

魂動

KODO : SOUL of MOTION


mazda