

interior motives

Summer 2010

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BERTONE PANDION

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PIONEERING DESIGNS FOR A NEW DECADE



BERTONE

OPEN YOUR FUTURE

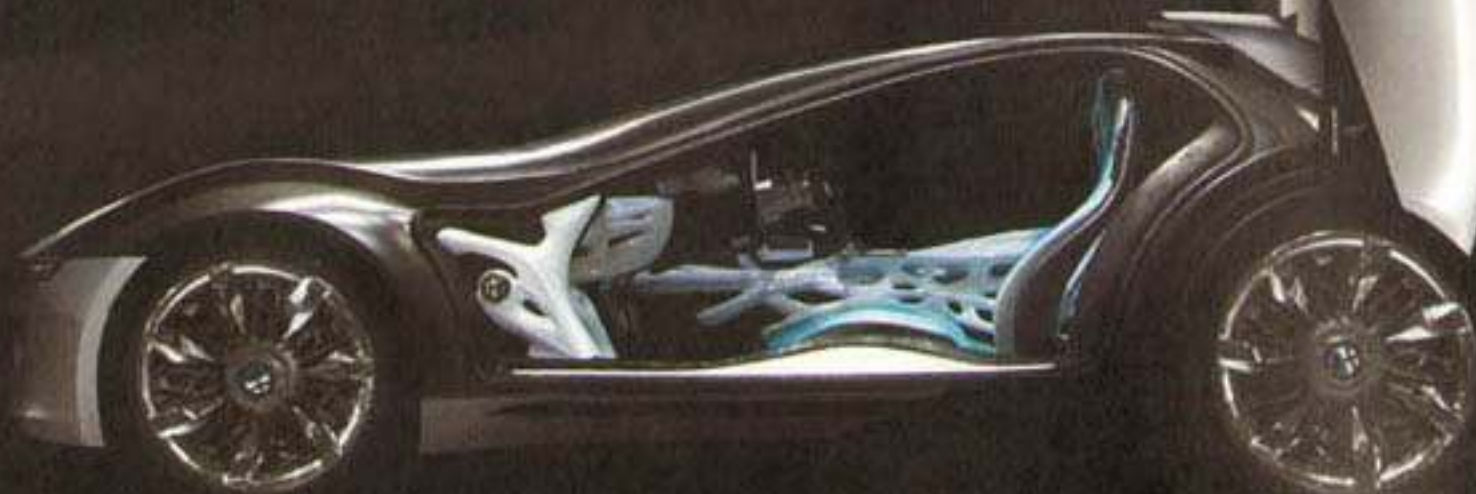
DESIGN, ENGINEERING, & PROTOTYPING
SINCE 1912



Lotus Stratos 0 - 1970



Lamborghini Countach - 1971



Alfa Romeo Pandion - 2010

More Than SKIN DEEP



Bertone Pandion

Vehicle type: **concept/4-seat coupe**

Design Director: **Michael Robinson**

Chief designer: **Adrian Griffiths**

Interior designers: **Stefano De Simone
Teresa Mendicino**

Colour & trim: **Guilia Cinti**

Digital design: **Marco Saino**

Project started: **November 2009**

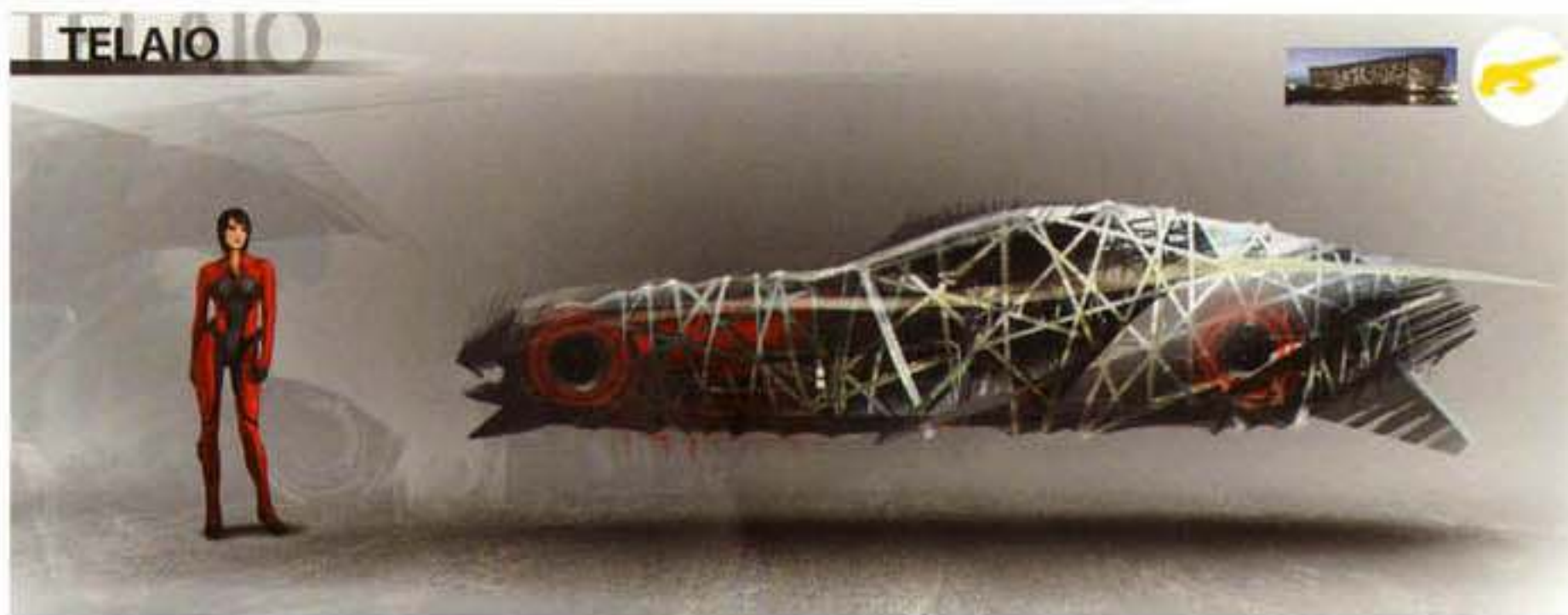
Project completed: **February 2010**

Launch: **Geneva/March 2010**

Supplier	Component
Exp s.r.l	carbon-fibre seats
Grado Zero Espace s.r.l	seat and floor lighting
Raitec s.a.s	onboard electronics and illumination
Technogel	polyurethane gel (seats)
Alcantara	headliner
Alpeat s.a.s	plexiglass
Conceria Zebri S.p.A	leather



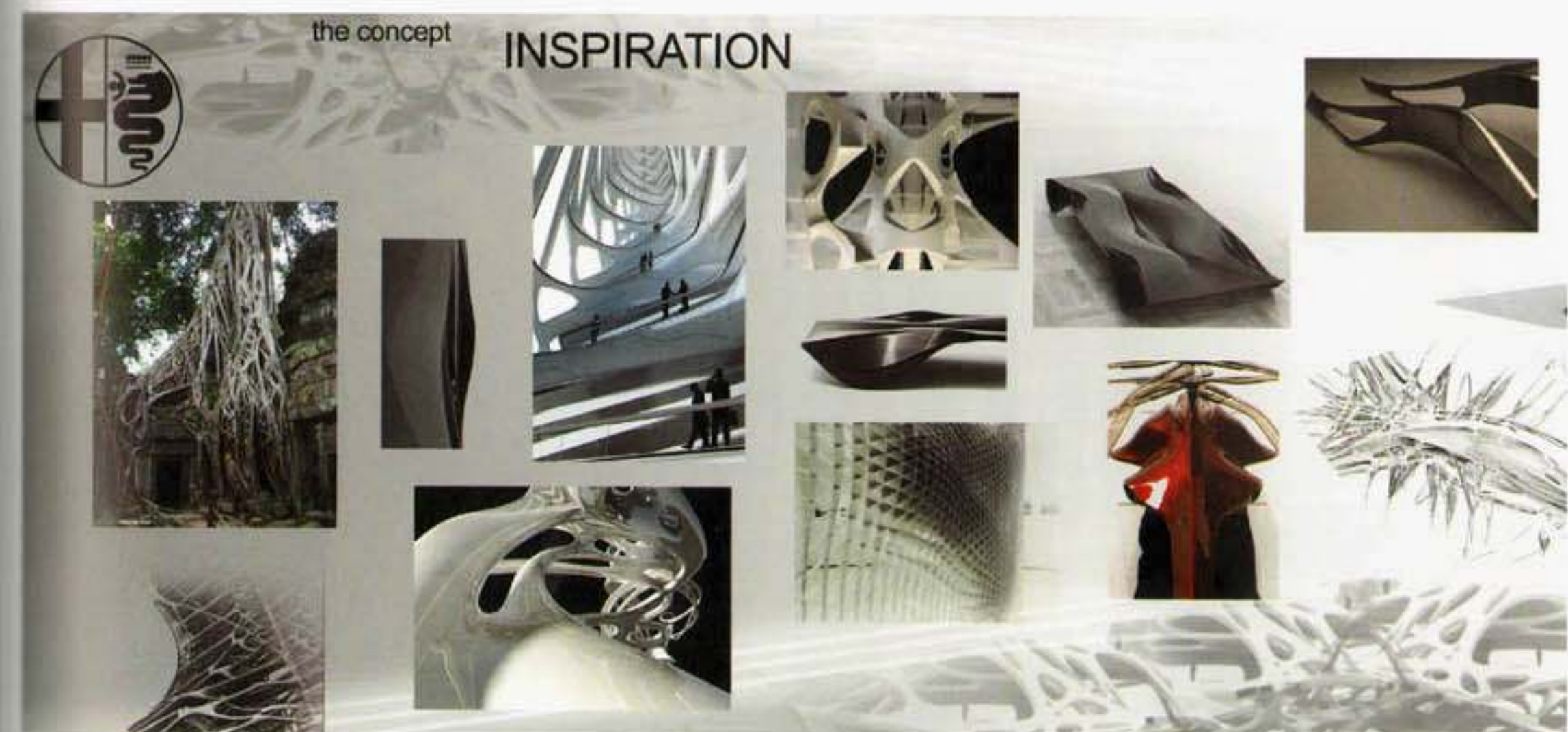
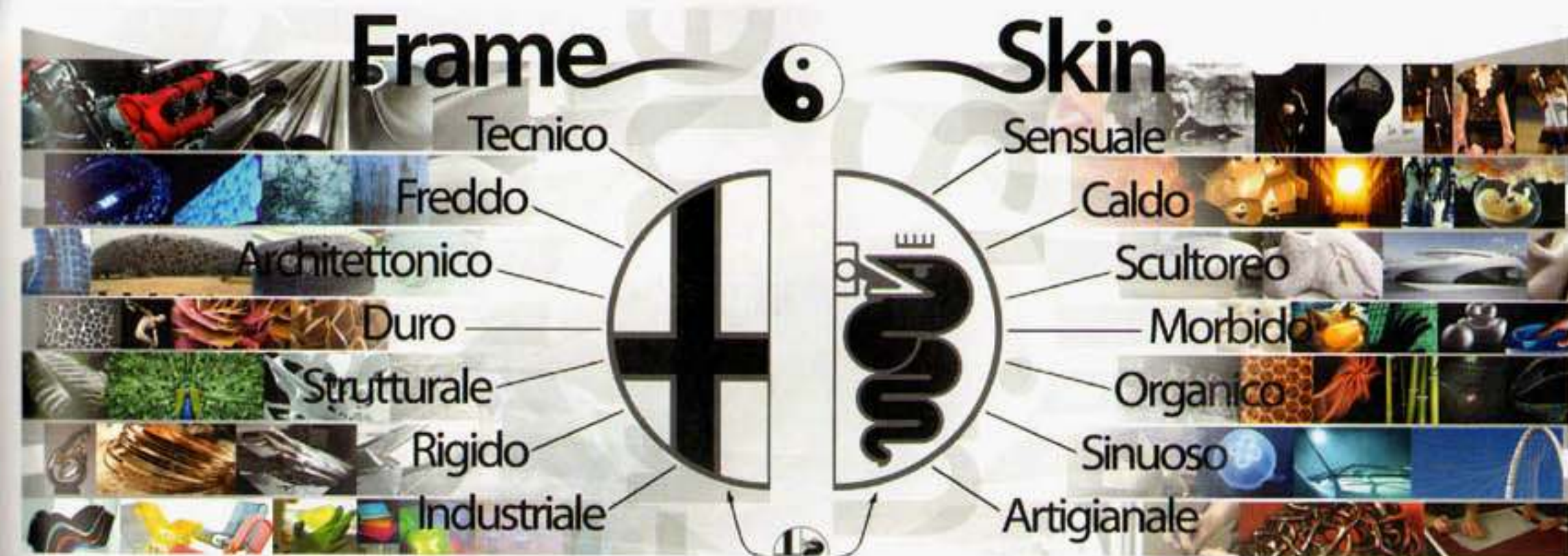
Text: Paula Champa

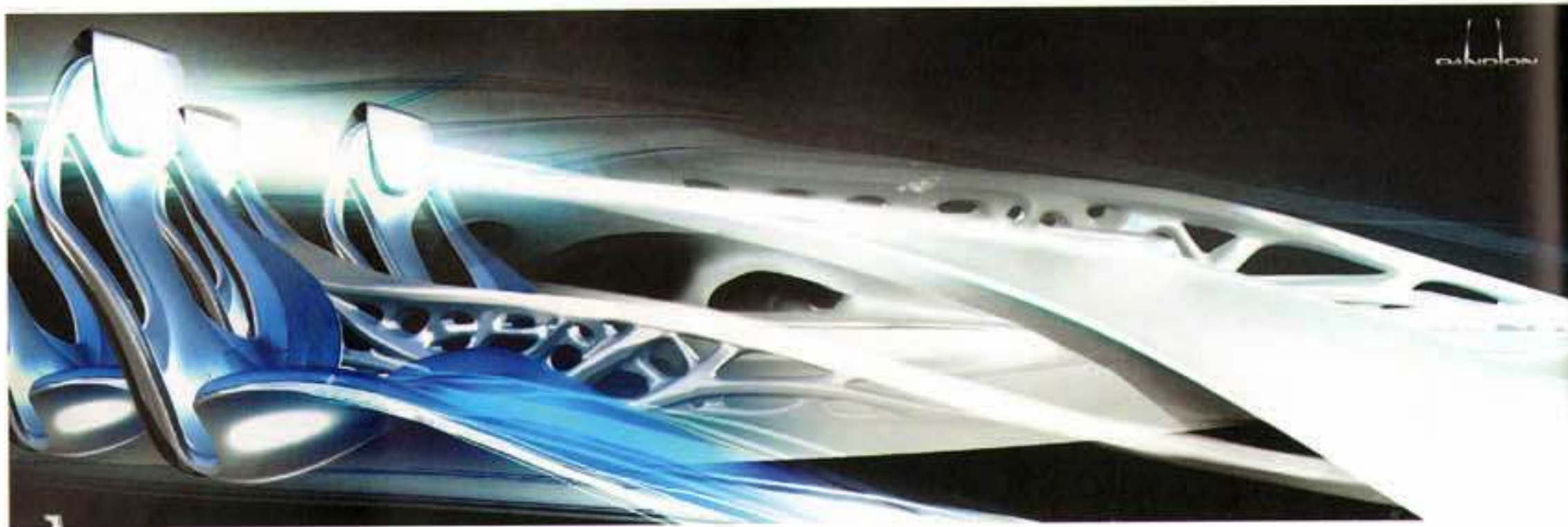


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4	2
	3

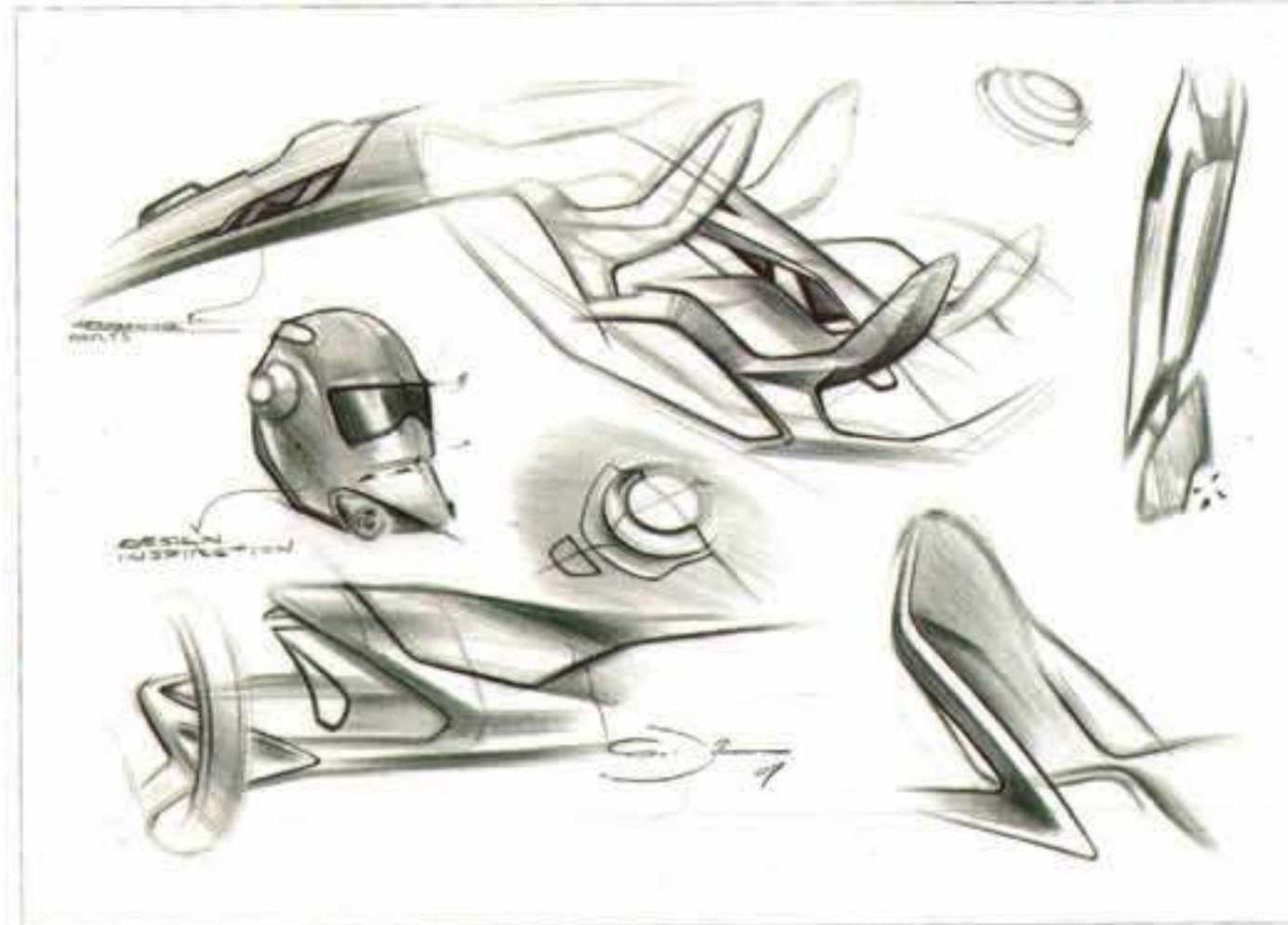
1,4 Alfa Romeo called us in and said, "Could you make a concept car – the "8C of the future" – for our 100-year anniversary?" explains Bertone's Brand and Design Director Mike Robinson. "We had an opportunity to get away from the retro-oriented Alfa-Romeo-isms that have been going on for too long." The guiding idea for the project was the curious paradox that the team detected within the Alfa Romeo logo (pic 1): "On the left-hand side there's the heraldic cross of Milan, which is the mechanical, engineering, performance side – everything that's rational. On the right is a snake; and that, to us, was the sensuous part: beauty and aesthetics and emotion." The designers set out to create a dynamic mix between the two by playing with the relationship between the car's skin and its frame ('telaiio' in Italian). One exploratory sketch (4) applied the design of Herzog and de Meuron's 'bird's nest' Olympic soccer stadium in Beijing to the outside of the car, as an exoskeleton.

2,3,5 "I prohibit designers from doing sketches for the first two weeks because I want them to work on concepts – and bring concepts from outside the industry," Robinson notes. A study of the menacing, spiked spaceships from sci-fi movies (5) influenced the use of blades on the car's exterior. Designer Teresa Mendicino's flowing, floral sketches (2) sent Robinson back to his own research, which yielded the project's second guiding concept: algorithmic design (3), where computer-generated algorithms are used to create manmade structures that mimic the irregular forms of nature. The exterior designers took a thorny, hard-edged direction with this new concept, while the interior team took a more flowing, comfort-friendly approach, furthering the contrast of the original 'skin and frame' idea.





1	4	5
2	6	
3	7	

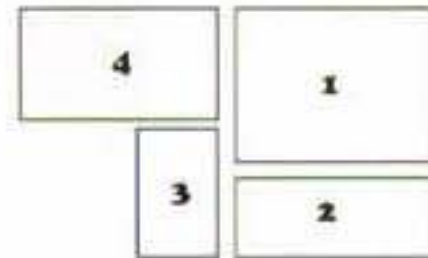
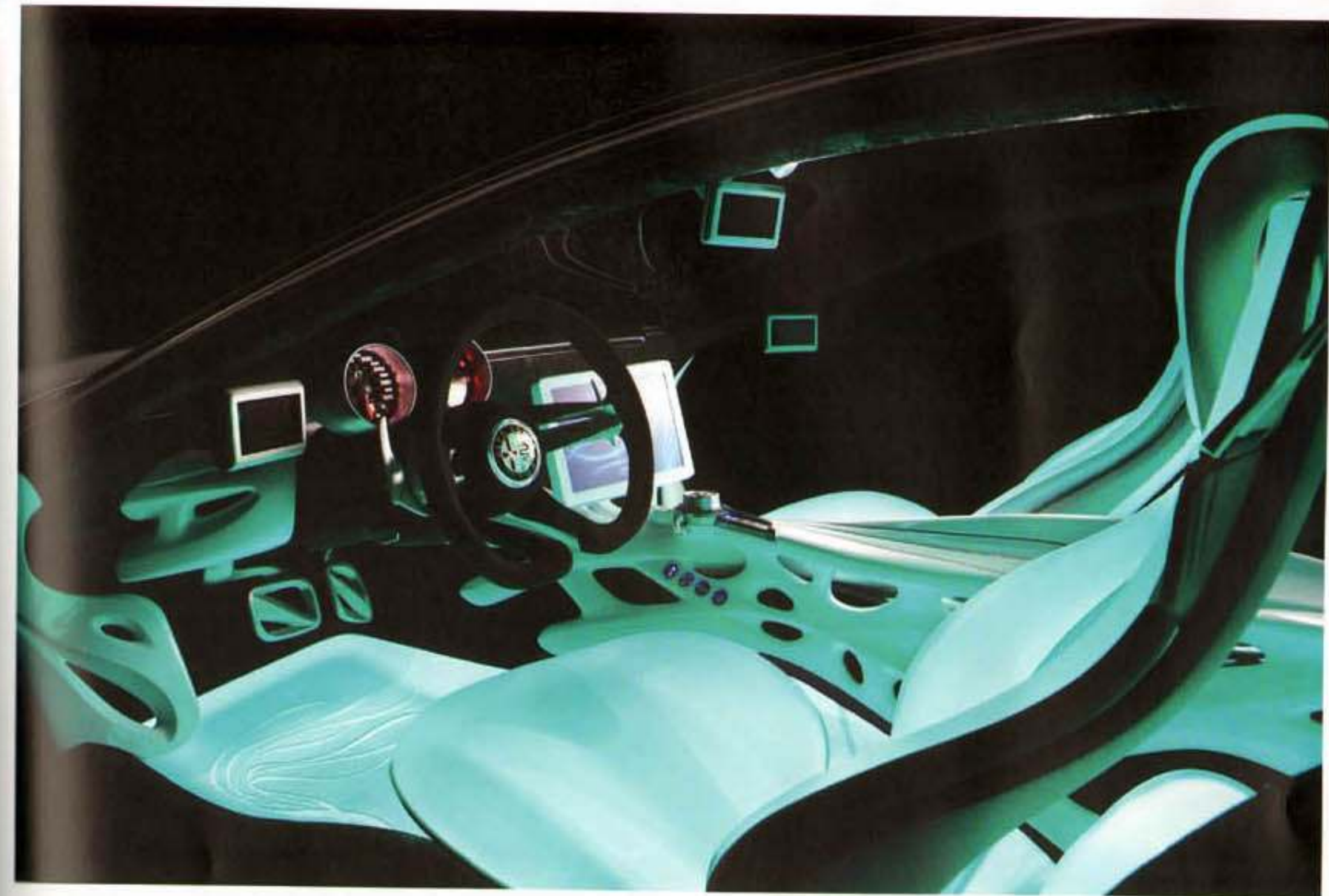


1 Stefano De Simone's teaser sketch illustrates the minimal yet voluptuous forms that came to define the interior. The Pandion was built around a shortened version of the Maserati Gran Turismo platform — which also formed the basis of the Alfa Romeo 8C — in a remarkably fast four months. The exterior design was chosen and approved by Alfa within a month of the initial research and sketching phases. The quarter-scale and full-scale clay models for the exterior followed while development work continued on the interior, primarily through clay modeling rather than sketches. According to Robinson, the wild shapes of elements such as the center console were decided through trial and error: "The holes in these things, inspired by algorithmic design, in reality were not done by a computer, but by give and take — a little more, a little less, then stop."



2,5,7 De Simone's initial sketches had the seats emerging from and returning to the floor, as seen on the lower right of pic 2. This was scrapped in favor of a floating seat that Bertone named the 'Zero G' (5). An overhead view of the car, created in Photoshop, was used to visualize the flow of lines and shapes through the vehicle.

3,4,6 Clay components such as the steering column and the center tunnel were scanned, digitized and milled out in Epowood for the final concept. Robinson hypothesizes that a production version might utilize a process of blow-moulding carbon-fibre to replicate the complex forms. Bertone's head of interiors and head of exterior modelling came together to fit the car's 12-foot doors (6), which were inspired by the wings of the osprey. The bird also lent part of its scientific name (Pandion Haliaetus) to the car.

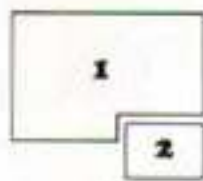


1 "A car should tell a story, like a good film," observes Robinson. Here, the film might be *Avatar*. The design team first saw the movie on opening night, coincidentally three days before Pandion was completed. "We were shocked to see that we were on the same wavelength – above all, when the characters were walking through the forest and the ground would light up." Pandion's illuminated floor and seats came out of Robinson's desire to find a more mesmerizing way of using illumination than "boring, pragmatic" map lights. After electroluminescent film and LEDs failed to achieve the effect he envisioned, Bertone's head of color and trim, Giulia Cinti, proposed reLIGHT® – a textile lit by electric leads that was used to illuminate both the seats the floor. Robinson chose a shade of swimming-pool blue so that "when you get into the car at night, it gives the impression of falling into infinite blue."

2,4 The ultrathin seats (30mm) are constructed in layers: Sandwiched between the popsicle-blue tinted Technogel and a white, carbon-fibre shell is the reLIGHT material – cotton cloth spread with polymer, which illuminates. The grey exoskeletal structure behind the seat holds the headrest and seatbelt roller, and attaches to part of the carbon-fibre but stands 2-3cm away. About 30 pieces of reLIGHT were cut and sewn together for each seat; on the floor, the textile is protected by a layer of Plexiglass. The side glass in the doors extends as far forward as the front wheel well, providing a panoramic view and extra visibility from the side of car – a reversal of the trend towards smaller windows in sports cars. This open side structure is enabled by anti-crash side beams, which are executed in the same glossy, rootlike, open-celled form as the centre console, and double as armrests – one of the many times where the functional and the aesthetic, and interior and exterior overlap on Pandion.

3 The network of channels flowing under the gear shifter and through the centre console is reminiscent of "nerve endings and ligaments pulsing electronic information up and down the backbone of the car," says Robinson.





1,2 "I couldn't imagine an Alfa Romeo having some kind of Casio-watch-style instruments," says Robinson. "I wanted to have analogue gauges – big round cones with giant speedometers and tachometers. But when it came to the automatic gear shifter, I didn't want to have a big clunky thing on the centre console." Bertone's electronics expert connected the gear shifter to buttons that the team designed and built into the flowing surface of the console. "In this fluid, organic centre tunnel, we have the parking brake and all the hardware to make the car work. I wanted them all to be 100% functional – it's easy to make fake buttons, it's hard to make real ones."

The "Skin & Frame" concept, combined with algorithmic design, results in an interplay of forms and areas of contrast, and crossover between hard and soft, exterior and interior. "We've just touched on the concept here," Robinson says. "I'd like to see other designers interpret it in even more profound directions and continue this research."

Bertone Pandion

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