EXHIBIT J

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Wheels
The Nuts and Bolts of Whatever Moves You

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The Evolution of Audi's Singleframe Grille, Explained in Detail

By PHIL PATTON

Wolfgang Egger, Audi's design chief, took a few minutes last week at the New York auto show to explain the shape of the company's new A3 and S3 models, and his new twist to the evolution of the Audi grille. Mr. Egger, 50, pulled out one of his burnt sienna drawing pencils to highlight his ideas.

The grille is important, he explained, because other companies have signature grilles with more history. Audi had to develop its symbolic identity more consciously. The result has become so critical to the company's identity that it has trademarked the word "Singleframe" for a car grille.

Mr. Egger sketched a broad history of the grille's development over the last 30-plus years, beginning with a sketch meant to represent the grille as it existed before, which he marked "'70" to represent the 1970s. Then he began a second sketch.

"The beginning was horizontal and low, with the first Quattro," he said as he drew, referring to the "Ur Quattro" all-wheel drive performance car of 1980. That design, which featured a longer, narrow second grille beneath the main one, appeared on several Audi models through the 1980s.

Then, he said, "there is a relation between the two grilles but they are divided." He marked this sketch "'90" to represent that era of design innovation; during that era Hartmut Warkuss, Audi's longtime design director, mentored young designers including J Mays and Freeman Thomas. The grille from that period can be seen on Audi models into the 2000s, like the 2002 A4.

Mr. Egger began yet another sketch. "Where the form comes together, completing the design, this is the first Singleframe," he said.

That came when Walter de Silva arrived from Alfa Romeo to take over Audi's design studio and instituted a bold, upright — and at first controversial — version of the grille, as seen on the Nuvolari concept of 2003. "Now the grille becomes strong and not just functional but symbolic," Mr. Egger said.

"This was with the A8 of that generation," he continued, referring to Audi's top-of-the-line model, which received the trapezoidal Singleframe grille during a 2005 mid-cycle refresh. "For the first time it has the force — functional, structural and symbolic all at

once. Like the big brands who have 100 years of history and who never have to change their grille, we now have the symbolic."

In the next stage, Mr. Egger said, Audi refined the Singleframe to add more character under the direction of Stefan Sielaff, Mr. Egger's predecessor as head of Audi brand design. This crisp cornered version, Mr. Egger said, was like a knight's shield. It can be seen on many current models, including the 2013 A4; various color and mesh patterns within the Singleframe distinguish Audi's sportier S and RS models.

"In the Crosslane concept in Paris we showed the next step," he said. "We keep the Singleframe but do the next step — the three-dimensional, sculptural shape." Now the grille, he said, is fuller and attached to the frame of the car. This has functional advantages for meeting impact and pedestrian regulations; it also works for branding. "The three-dimensional opens a world for us to distinguish the models," Mr. Egger said. It will show up first on the new Q3 crossover, whose face resembles the final sketch in Mr. Egger's series.

Turning to the A3, Mr. Egger pointed out that the sedan was designed with the United States market foremost in mind. The American market currently receives only the wagon, which will no longer be sold here.

"It is a sport sedan," he said, sketching the A3. "You make it a sports car with the silhouette," he said, sketching the long, low roof. Then he added the full body and tenderly hatched and shaded large wheels.

"Then there is what we call the tornado line," he said, energetically swiping back and forth along the upper body. "That is really Toronado line of course," he noted, "from the Oldsmobile model."

There is a story behind the name, and it links back to Audi. Warkuss, like many auto designers, was an admirer of the 1966 Oldsmobile Toronado, General Motors' first modern front-wheel drive car; he often praised the model's dynamic side character line in talks to his designers. The word "Toronado" was mangled into "tornado," naturally enough, as it entered designer lingo first at Audi and then among the wider profession.

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Designers of Aston-Martin Rapide S Embrace Golden Ratio

By PHIL PATTON

With the first Aston Martin Rapide, which went on sale in 2010, Marek Reichman, the Aston design chief, and his staff impressed their colleagues around the world. They figured out how to stretch a classic two-seater sports car, the DB-9, to accommodate four without making it look gawky or awkward.

Now the Rapide's successor is arriving, in Aston's centennial year. The Rapide S, designed from scratch with four doors, is set for unveiling at the Geneva auto show, but is already well documented on Aston's Web site.

The new Rapide is a more integrated, refined car, with a more powerful engine. But the company also makes a striking claim for it. The designers say they have configured every aspect of the car according to the legendary proportion called the golden ratio and show a chart to prove it.

"The golden ratio sits at the heart of every Aston Martin," the company says. "Balanced from any angle, each exterior line of Rapide S works in concert and every proportion is precisely measured to create a lithe, pure form. Our engineering follows the same principle. A near perfect weight distribution ensures Rapide S is balanced in form and balanced in function."

But the exterior body proportions do not necessarily reflect the weight distribution.

The golden ratio is the proportion of width to height of about 5 to 8, or 1.61, famed in Greek art and design (the facade of the Parthenon, some historians say, adheres to the golden ratio) and celebrated by such modernists as the architect Le Corbusier. He used it as the basis for the Modulor, his entire system of proportions, which he applied to everything from furniture to buildings.

Auto designers are always talking about proportions as the most important part of a design. They speak of such recondite ratios as "axle to cowl." But the Aston diagram shows dimensions all over the Rapide S, from its new grille to its new flip-up aerodynamic tail, that adhere to the golden ratio.

Believers in the power of the ratio argue that rectangles based on it are naturally attractive to the human eye. Some tie it to deep natural ratios, like the Pythagorean theorem or the Fibonacci numbers, making the proportions sound like a mysterious Da

Vinci code of design.

They point out that such common items as books, television monitors, credit cards and the original iPod adhere to it. In a recent New York Times opinion piece, Lance Hosey, a designer and author, writes that the shape appeals because it is inherently fast.

"This simple shape speeds up our ability to perceive the world, and without realizing it, we employ it wherever we can," Mr. Hosey writes. He refers to the research of Adrian Bejan, professor of mechanical engineering at Duke University, who argues that the Golden Ratio works because the eye grasps it more quickly than others.

The Rapide S certainly looks fast.

Aston has lowered the engine to make the car lower and longer in appearance. Aston made the car more attractive by increasing the power of the V-12 engine. The car also has a new grille. It is hand formed from a single piece of aluminum. But it gives the car a face that is not just aggressive but rapacious. That new grille may be disproportionate.

The side strakes on the new Rapide are much smaller than on the original. Those long side lines made up a sort of visual cheat line to bring a greater sense of length to the car. But the strakes are a reminder that the looks of a car — or a building or a chair — depend not just on proportion, however critical they are, but on lines and curves and textures that lead the eye.

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