

# Driving Performance

The AMG Magazine  
2013/14

New York

A burger with gold leaf

Summit Meeting

The A 45 AMG and the CLA 45 AMG

Engines

The secret of the AMG sound

## Flashlights

SLS AMG  
Black Series

The AMG logo, consisting of four slanted parallel bars followed by the letters 'AMG' in a bold, sans-serif font.

A white sports car is shown in motion on a city street at night. The car is in the foreground, moving from left to right. The background is filled with blurred lights and buildings, creating a sense of speed and urban atmosphere. The text "Desire is something you can't control" is overlaid in the center of the image.

“Desire is  
something you  
can’t control”



Boris Radczun and Stephan Landwehr in their restaurant Pauly Saal, a one-time girls' school.

# City of Dreams

**Reportage**

**Text Antje Wewer**

**Photos Christian Grund**

**Art, culture, life. Around the clock. Berlin is the capital city of the young, the wild, the creative – a city beyond superficial commercialism. A metropolis that lives its regained freedom to the fullest**



All abuzz on the Western front: Concept store owner Andreas Murkudis and his brother Kostas (back).

Looking ahead: Kirsten Hermann in her gallery.



Bold mix: Jens de Gruyter in his tea shop Paper & Tea.

Bunker art: Interior view of the Boros collection.



Warehouse meets vintage cars: Classic Remise in Moabit.



To Berlin, with love: Christian and Karen Boros in their penthouse.

**“Art, glamour, trash: In Berlin everything is related to everything else. In perhaps no other metropolis are the scenes so permeable as here. And it’s precisely this phenomenon that makes the city so inviting.”**

**S**

Stephan Landwehr takes a seat at a corner table. Perched above him is a stuffed fox with a hunting cap and a plaster paw — a sculpture by the artist Daniel Richter. Landwehr is not only a restaurateur, but also a collector. He’s testing the lunch menu of his new restaurant, the Pauly Saal (or: Pauly Hall). The light breaks through the large windows; in the middle of the high-ceilinged room sits a young female gallery owner with a beautiful photographer. To the side, somewhat hidden, is the designer Wolfgang Joop with a bowl of soup, and next to the open kitchen is a group of management consultants in tight suits.

Landwehr’s résumé is exemplary of the Berlin art world. And simultaneously proof of how porous the different scenes of this city are. The 53-year-old started with a workshop for picture frames in Berlin-Kreuzberg. Back then, he still grilled sausages in the courtyard for young, unknown artists and his good friend Bruno Bennett, who today owns the Contemporary Fine Arts gallery; now Landwehr serves them expensive steaks. With the Grill Royal restaurant, in 2007 he gave Berlin a place that it didn’t have before. In the “Grill” the jet set of gallery owners, collectors, and artists, swarmed by glittering celebrities, joyfully spend their money on oysters, salad, and champagne even in times of economic crisis. “I will always make sure that starving artists can get a salad or an appetizer that doesn’t cost a lot and fills them up. It would be a shame if the very same people who have made Berlin what it is had to keep out,” Landwehr comments on his success.

The fine grill is in a mundane prefab building from the GDR days along the Spree River. Around the corner is the small, dark King Size Bar, right next to the Friedrichstadtpalast revue theater. Landwehr heads both with his partner Boris Radczun, who previously made his name as nightclub owner and a chef. But let’s go back to the start, back to Pauly Saal. With his second restaurant,

Landwehr has now furnished the intellectuals as well as the glitterati with a new dining room and a bar.

The eatery resides in a former girls’ school in Auguststrasse. In the kitchen reigns Michelin-starred chef Siegfried Danler. He focuses on traditional cuisine with gourmet standards, which means: pork shoulder from Uckermark, two different kinds of Linower deer or Baltic cod. The food is local and tasty — and even a little bit more than that. The building has history: architect Alexander Beer erected the imposing brick building with 14 classrooms and a gymnasium in the 1920s for 300 female students of the Jewish religious community. At that time, however, Germany stood on the precipice. The school was closed in 1942, and only in 2006 during the Berlin Biennale was it opened again to the public. Around this time gallery owner Michael Fuchs entered the picture and leased the building for 30 years, initiated the careful restoration of the interior through the architects Grüntuch and Ernst, and offered his old party pal Landwehr the one-time gymnasium — which closes the circle.

On the same floor resides the Kosher Classroom, in which a traditional Sabbath dinner takes place each week, together with the Mogg & Meizer Deli (specialty: pastrami sandwiches), where DJs and models and sightseers come together.

Art, glamour, trash: In Berlin everything is associated with and near to everything else. In probably no other metropolis are the scenes so permeable as they are here, and it’s precisely this phenomenon that makes the city so enticing. The first wave of Neuberliners (or: New Berliners) came at the beginning of the 1990s. They were the stereotypical nouveau riche, who found the city frantically exciting but were always keen to let you know that they had enjoyed a better upbringing and were accustomed to a better way of life.

The second wave of Neuberliners came from outside Germany and imported an international urbanity, which was appreciated and embraced right from the start and continues to be an attractive and much-loved feature. Hang out at the studio of Danish light artist Olafur Eliasson, with American bands in the legendary 8mm Bar, or in Schmalzwald

**“The city has exceeded my expectations,” Boros swoons. “Berlin has always interested me, because it’s in the making. Where else can you create so much? There are still so many empty chairs here.”**

(which translates to “Lard Forest;” it is, however, a lighthearted pun on the famous Schwarzwald (or: Black Forest) and alludes to the rumored provinciality there), the kitschy back-alley joint run by Canadian artist Laura Kikakau. Today, many corners of Berlin still look like someone had a dream during the night and resolved to make it a reality immediately upon awakening. That’s why there’s a swimming pool that floats in the waters of the Spree (the Badeschiff, or: Bathing Ship). That’s why the Mauerpark (which literally translates to Wall Park and is a landmark commemorating the Berlin Wall) is home to the city’s best karaoke party. And that’s why the streetlights in Prenzlauer Berg were in the shape of hearts one morning. Nothing stays as it is. That’s exactly what accounts for the continued appeal of this city. The West German advertising entrepreneur and art collector Christian Boros has also reinvented himself here. In his early twenties he invested his first financial earnings in art (an empty wooden box by Joseph Beuys) and has since become obsessed with various pieces of art. Over the years, he stacked warehouses full of paintings and sculptures and eventually began looking for a place to show his treasures. “The destination for the collection was always Berlin, but the destination was never a historically listed bunker,” says Boros, adding with a smile: “It just found me.” That’s how the Boros Bunker, a project of madness, was created. To turn it into what it is today, construction workers spent five years eating through labyrinthine openings from two to twenty feet wide — and also through 60 years of German history; civilians during World War II, prisoners of the Red Army after 1945, workers in a GDR banana warehouse, techno parties and a sex club had all left their mark. Out of that 1942 building Boros has now fashioned his private museum of modern art and placed a spectacular penthouse on top of it. Karl Lagerfeld has been there, Brad Pitt and Madonna too. And it’s not just celebrities who are treated like friends of the family. All who come to the Boros Bunker are guests, not just visitors. With his friendliness, he consciously contrasts the gruffness of many Berliners, an attitude that often confuses newcomers.

# O

On weekends, by appointment, small groups are led through the bunker’s private collection.

“The city has exceeded my expectations,” swoons Boros. “Berlin has always interested me because it’s in the making. Where else can you still create so much? There are still so many empty chairs here.”

The diversity of life in Berlin is shaped by its internationalism. In the east there is the English-run Soho House, a comfortable hipster hangout, and for posh sightseers in the West there is a branch of New York’s legendary Waldorf Astoria hotel.

Money is slowly coming into the city, and that pleases anyone who no longer wants things to simmer on the back burner in an impromptu way, but would instead prefer to kick things off in grand style and focus on events like Mercedes-Benz Fashion Week, Gallery Weekend, or the innovative “abc” (art Berlin contemporary) art conference. One such visionary is Martin Halder, the owner of Classic Remise (once known as the Meilenwerk) in Moabit, where everything is about classic cars, and historic vehicles are exhibited in glass garages. He has invested more than 30 million euros and wants to transform Eiswerder island in Wasserstadt Spandau into an “island of beautiful things:” an activity center that revolves around antique cars and ships, and that offers lofts, villas, and a hotel. The nostalgia-prone and critics maintain that the whole romance of infinite possibilities is increasingly taking a back seat. Instead townhouses shape the new look of the city, and rent prices are booming. And yet, the city is large enough to allow many worlds to exist side by side. Today’s Berlin is a parallel society in the best sense of the phrase and outwardly incredibly egalitarian. Those who roam the streets in the evening with a bottle of beer aren’t ruffraff, they’re bohemian. Those without work have a project.

The Circle Culture Gallery began ten years ago as a “Project Space.”

Coarse on the outside, creative on the inside: Club owner Cookie in his vegetarian restaurant Cream.



Latest edition to the Cookie empire: The Drayton Bar.

**Info****Pauly Saal**

Auguststrasse 11-13,  
10117 Berlin.  
Open Mon to Sat from  
12-3 pm and 6 pm to 3 am.  
[www.paulysaal.com](http://www.paulysaal.com)

**Murkudis**

Potsdamerstrasse 81 E,  
10785 Berlin.  
Tel. 030/680798306  
[www.andreamurkudis.com](http://www.andreamurkudis.com)

**Sammlung Boros**

Bunker, Reinhardstr. 20,  
10117 Berlin. Visits to  
the collection must be  
reserved in advance  
via the website.  
[www.sammlung-boros.de](http://www.sammlung-boros.de)

**Cookies**

Unter den Linden 41,  
10117 Berlin.  
Cream restaurant only  
with Drayton Bar Tues  
to Sun from 6 pm.  
[www.draytonberlin.com](http://www.draytonberlin.com)  
[www.cookies.ch](http://www.cookies.ch)

**P&T / Paper & Tea**

Bleibtreustrasse 4,  
10623 Berlin.  
Tel: 030/95615468, Monday  
to Saturday 11 am to 8 pm.  
[www.paperandtea.com](http://www.paperandtea.com)

**Galerie für  
Moderne Fotografie**

Schröderstrasse 13,  
10115 Berlin.  
Thursday, Friday, and  
Saturday 12-6 pm.  
[www.galeriefuermoderne-fotografie.com](http://www.galeriefuermoderne-fotografie.com)

**Many want to  
return to the west  
part of the city.  
Even the classic  
Ku'damm, long  
since forgotten  
over the years,  
is suddenly  
back on the map.  
The famous  
Bikini Haus on  
Breitscheidplatz  
is being fully  
renovated, like  
the Zoo-Palast  
next door.**

# T

Today Johann Haehling von Lanzenhauer heads a gallery with a global reach and an emphasis on urban art. "In Berlin there is always enormous potential," Haehling evangelizes. "Berlin is rich and sexy! Rich in the sense of social warmth, courtesy and professionalism." The once Communist East is becoming increasingly established; the once rich West is suddenly attractive again. Berlin remains on the rise. The Concept Store by Andreas Murkudis, a German with Greek roots, is in the courtyard of a former newspaper print shop in Potsdamer Strasse and has the impressive dimensions of a soccer field.

In 2011, Murkudis moved from the city's east to its west. "It was love at first sight. This kind of location wouldn't be affordable in any other metropolis," explains Murkudis. "In Berlin, you can set out to realize your visions, because you can afford to take the risk without ruining yourself at the same time." In the massive store, you can acquire the objects that Murkudis has personally selected and approved. Including: cashmere by Johnstons, furniture by E15, porcelain from Nymphenburg, or leather jackets by Giorgio Brato (Jean-Paul Gaultier picked one up on his last visit).

Eighty percent of his clientele are repeat customers. They like the new location in the west of the city – including the charming surroundings. Milliner Fiona Bennett is located in the front building; in the backyard are the Blain/Southern and Thomas Fischer galleries as well as the studio that belongs to designer and brother Kostas Murkudis – a genuine sense of family. Of course, you can also buy Kostas' collection in Murkudis. Perhaps the best Thai restaurant in the city, Edd's, awaits around the corner. Right next to the long-established Café Einstein, the "Joseph Roth Hall" is a recommended spot for lunch and the Viktoria Bar is ideal for cocktails until the wee hours of the morning. Many want to return to the western part of the city. Even the Ku'damm is suddenly interesting again.

# T

The famous Bikini Haus at Breitscheidplatz, built in the mid-1950s, is now being as dramatically renovated as the legendary nearby Zoo-Palast (or: Zoo Palace). And even the “Cumberland House,” a long-forgotten colossus on the Kurfürstendamm, was revived and now houses the “Grosz,” another offshoot of Borchardt owner Roland Mary that does it all: café, cocktail bar, and haute cuisine.

It almost seems as if the enchanted Berlin of the epicurean 1920s were surfacing again — yet new, not with an antique patina, but instead facing toward the future.

“The wind is blowing westward,” German-Canadian Jens de Gruyter states as well. De Gruyter worked in New York, London and Vancouver before opening his P&T tea house on Bleibtreustrasse in Charlottenburg. “I believe in the West’s renaissance.” The minimalist shop styled by interior designer Fabian Ferrari is more than a store. It is a place for the exchange of tea culture and works just like a well-assorted boutique with “tasting stations.” The leaves are displayed sorted by degree of oxidation: from white tees to green and yellow, to oolong on up to black mixtures. Back to the East; not everyone is following the east-to-west currents. In no other city in the world do those compass points carry so much inherent symbolism as in Berlin. A city that was divided into East and West for more than two decades by the Iron Curtain, by the Berlin Wall. On charming Schröderstrasse, which on sunny days recalls the Marais district of Paris with its small fashion shops and dreamy facades, lives Kirsten Herrmann. A practical setup: Her “Gallery of Modern Photography” is on the ground floor and she lives upstairs. “For me, there’s no alternative. Here is where I can sense the history of Berlin, especially the divided city. I still get goosebumps when I walk between Bernauerstrasse, Chausseestrasse and Gartenstrasse and I’m free to choose my own path,” Herrmann says, describing her personal Berlin feeling. In 2003,

she moved from London to Berlin. The 40-year-old likes to reminisce about those early days.

Back then there was little work for Herrmann, who trained as a stylist. “The city wasn’t taken very seriously internationally. The Berlin fashion set was derided as provincial. Today I avoid even saying that I live in Berlin, because you’re quickly confronted with something like envy because there’s this sudden hype.”

The hype over Berlin. Who could provide a better evaluation than Heinz Gindullis, aka “Cookie”? Born into a family of German artists in London, he came to Berlin at the age of 17, opened his first basement bar on Auguststrasse in 1992, and with that he has been an important creative force in the Berlin scene for more than twenty years. “I was in the right place at the right time. The nineties were a time when you could do anything. Every other house was vacant. You didn’t need a lot of money back then to get something off the ground.” Two years later, in 1994, he opened his club called Cookies. He’s moved it seven times since then, and it now resides in an imposing building near Friedrichstrasse. “When it comes to nightlife, Berlin is still the place to be. Here no one cares who you are, what you do, or how much you earn. It’s about having fun, no matter how big your bankroll.” At just eight euros, the entry fee to Cookies remains modest. A club in this league in Paris or London would cost three times as much.

But even in the conspiratorial and creative atmosphere of Berlin, competition is reined in; the DJ business is more professional, and even good service is no longer an accident. The majority of the clientele is between their mid-20s and 30s, and 38-year-old Cookie is enjoying the here and now.

“Berlin isn’t as brusque as it once was. Suddenly it’s important to greet people in a friendly way. And you find English being spoken more and more. By the barkeepers, in any event, but also in the rest of the city.” Anyone who now fears that this melting pot of East and West will slowly become staid underestimates the power of the creative class, the defiance of the restless. Berlin remains in motion, constantly reborn from this unspeakable happiness of freedom lost and then regained.

**“Berlin isn’t as brusque as it once was. Suddenly it’s important to greet people cordially. And they speak more English. The bartenders, in any event, but also the rest of the city.”**

**Passion**

Text **Ralf Niemczyk**  
Photos **Markus Bolsinger**



A firm eye on the gullwing: Usher is curious about the SLS AMG Black Series.



# Usher — Rhythm of the Asphalt

R 'n' B superstar Usher is crazy about AMG — and his visit to Affalterbach while his custom AMG engine is being assembled is a dream come true for him

# P

Pit stop in Affalterbach. Usher, the American R 'n' B singer and ambitious actor, is pursuing his automotive passion on his current European visit. At the top of his list of engine essentials — in addition to the Mercedes-Benz Museum and the International Motor Show in Geneva — is AMG headquarters. That's because this musician with an innate sense for cool sounds wanted to see the place that gives rise to the best rhythm of the asphalt: the AMG engine factory. This on-site appointment is nothing like a courtesy tour, because this umpteenth-time Grammy winner, whose debut album sold more than 100 million copies, is a true AMG fan. "By this point, I would call him a friend of the family," says Mario Spitzner, Director of Branding & Marketing at Mercedes-AMG, explaining the superstar's status at the company. Usher is a genuine car expert and an experienced driver. His enthusiasm for AMG unites the two.

With an expert eye and visible pleasure, during his AMG excursion Usher personally installs the final parts in the 6.3-liter V8 engine of his new custom SLS AMG. The AMG philosophy of "One Man, One Engine" appeals to him; the fact that an AMG engine is assembled entirely by hand by an individual mechanic thrills this musician and fan of technology, who loves this highest form of perfection.

His exclusive joyride in an A 45 AMG on the company's secret, screened testing course reveals not only the performance driver in him, but also the Mercedes-Benz fan. "When I think of luxury, Mercedes-Benz is the first thing that comes to mind. So it was very special for me when I was able to buy my mother a Mercedes-Benz after my first gold record. And up to today that's the only car that I've ever given to her," he says with a grin. He drives a CLS 63 AMG, and he'll soon drive an SLS AMG gullwing as well — now that the engine is ready.

So it turns out that the test drive in the A 45 AMG and later in the SLS AMG Black Series is a real highlight of his semi-private tour through Europe. "I can't wait to drive it," Usher says enthusiastically before starting with the A 45 AMG. "It looks cool and sexy, and I'm looking forward to the power of the four-cylinder turbocharged engine." His excitement is justified, because this two-liter turbocharged engine with 265 kW (360 hp) of output and 450 Newton meters of torque is one of the most powerful four-cylinder engines in the world.

"He really let it rip on the test track in Untertürkheim. Every now and then we suggested to him that he ought to use the brakes, too," smiles Mario Spitzner. "That's precisely the enthusiasm that fuels our partnership. I can easily imagine Usher asking me for a racetrack license next time." No problem — that's exactly what the AMG Driving Academy is for.



## Usher

Usher, the American R 'n' B singer and actor, is one of today's most successful pop stars. Since his first single, "Call Me a Mack," in 1993, the multitalented artist has sold over 100 million analogue and digital recordings.

A white Mercedes-Benz A-Class is shown driving through a tunnel. The car is in the lower right foreground, moving towards the left. The tunnel's interior is blurred due to motion, with light streaming in from the opening on the left. The car's front grille, headlights, and license plate are clearly visible.

**New Generation**

Text **Christian Sauer**  
Photos **Markus Bolsinger**

With its spectacular exterior, the A 45 AMG confidently emphasizes its exceptional standing.







Premium materials and first-class quality define the luxurious ambience of the interior of both AMG newcomers.



The design of the four-door CLA 45 AMG high-performance coupe follows the successful philosophy of the CLS 63 AMG.



**Mercedes-AMG  
enters new  
territory: The  
compact A 45  
AMG sports car  
and the four-  
door CLA 45  
AMG coupe offer  
an attractive  
point of entry  
into the exclusive  
world of AMG**



A power density of 133 kW (181 hp) and up to 1.8 bar charge pressure – specifications like these awaken the anticipation of true automobile enthusiasts. Typical AMG, you might think, and you'd be entirely right. Because for the first time ever the exciting new AMG models A 45 AMG and CLA 45 AMG feature as their power source a radical new four-cylinder engine assembled entirely by hand. But that's not all: with its 265 kW (360 hp) output, the 2.0-liter turbo engine is also the most powerful series-production four-cylinder engine in the world.

To reach this ambitious goal, the engineers in Affalterbach combined the experience they have accumulated over more than 45 years in motorsports and put it into one high-tech package. That includes things like a reduction in weight and performance-optimized components, such as the spray-guided direct fuel injection with central piezo injectors, as well as the ECO start/stop feature familiar from other AMG models. Through these measures, they were able to achieve especially low fuel consumption values and optimal emissions results. The outstanding aerodynamics of both models – with a Cd value of 0.22, the CLA even sets a new world record for series vehicles – play their part in the increased efficiency. The youngest members of the AMG family both prove that responsibility, safety and driving thrill aren't mutually exclusive – quite the opposite, in fact.

The road to the electronically limited 250 km/h top speed is as short as it is enjoyable. The A 45 AMG and the CLA 45 AMG need just 4.6 seconds to accelerate from zero to 100 km/h. Thanks to the Twin Scroll turbo technology, both the charge pressure and the torque build quickly even at low engine speeds. The full performance output is underscored by the engine sound, which performs a balancing act between the sonic excitement that is responsible for the allure of AMG and the quiet comfort that is typical of Mercedes-AMG on long journeys.

Also on offer is an even more distinctive AMG performance exhaust system (also with an exhaust flap), so the double-clutch feature in particular sounds even more intense when downshifting.

The AMG SPEEDSHIFT DCT 7-speed sports transmission provides three driving modes and RACE START for the best possible acceleration. The high shifting comfort and gear changes without loss of tractive force are among the strengths of the dual-clutch transmission. The shift times are on a similar sporty par to the SLS AMG, from which the basic software modules have been carried over.

Both newcomers are driving machines par excellence. Equipped with an AMG high-performance braking system, AMG sports parameter steering, an AMG sports suspension, and – perhaps most importantly – the performance-oriented four-wheel-drive AMG 4MATIC for optimal traction under all conditions, the A 45 AMG and the CLA 45 AMG display all the criteria of a high-performance vehicle developed by AMG. Of course, that includes the unconditional suitability for everyday use, which benefits from their compact dimensions.

From the very first glance, the fresh style of the A-Class and the expressive design language of the CLA inspired by the CLS show that dynamism and exclusivity aren't a question of size. The cockpits of both models proclaim this as well. High-quality materials and first-class craftsmanship characterize the dynamic ambience. Further customization possibilities of almost any kind are available in addition to the extensive standard equipment. And so the A 45 AMG and CLA 45 AMG manage to leave nothing to be desired, probably because they are near-perfect representations of the AMG brand promise: Driving Performance – in a new form!

**A 45 AMG  
CLA 45 AMG**

**Engine**

2.0-liter, four-cylinder turbo

**kW/hp**

265 kW / 360 hp

**Nm at rpm**

450 Nm at 2,250-5,000 rpm

**Fuel consumption, NEDC combined**

6.9–7.1 l per 100 km

**CO<sub>2</sub> emissions**

161–165 g/km

**Efficiency class**

D

**0-100 km/h**

4.6 s

**V<sub>max</sub>**

250 km/h

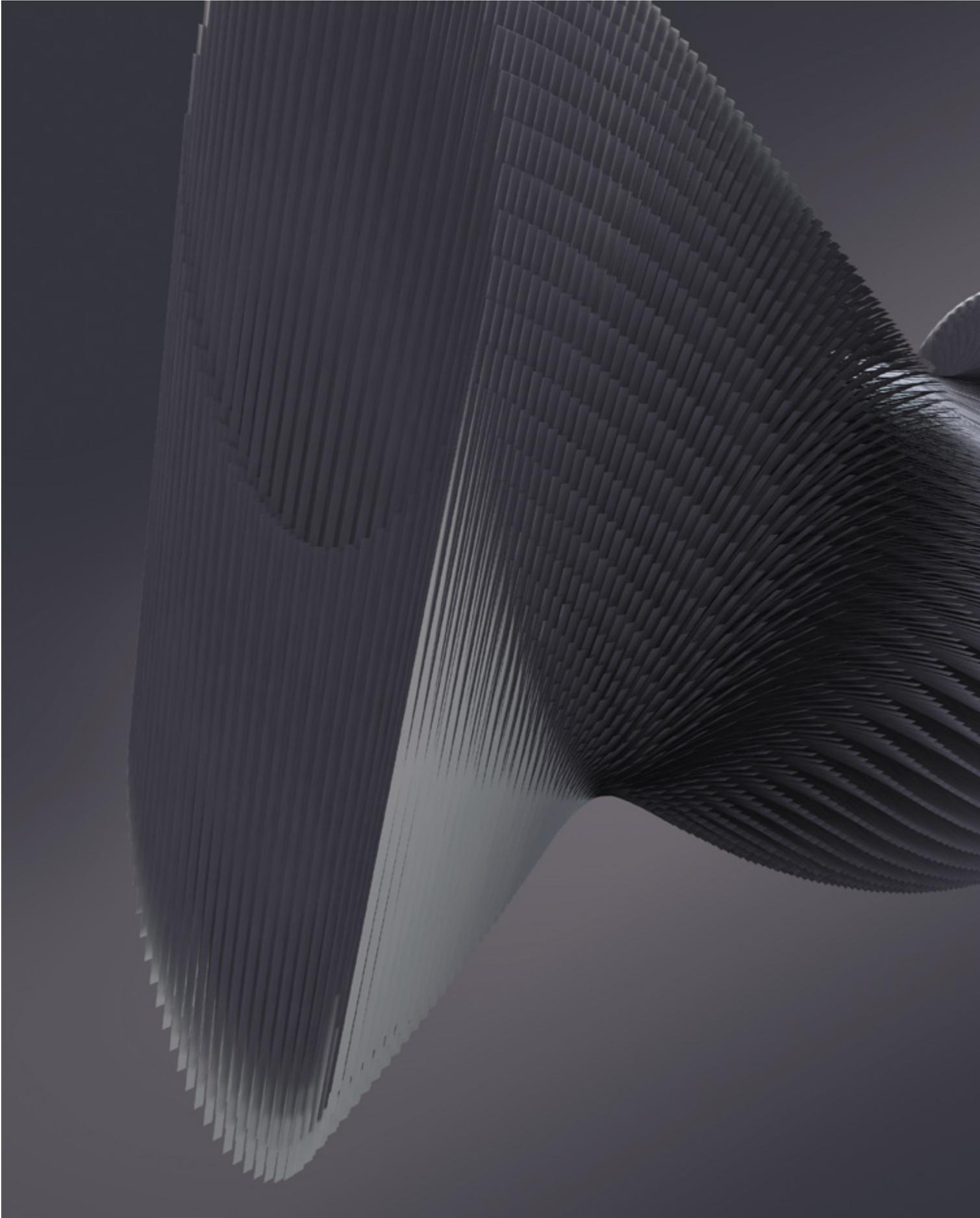
(electronically limited)

270 km/h

(with AMG Driver's package)



Compact power from all angles: The exterior and interior views of the A 45 AMG are persuasive.



## Good Question

Text **Adam Baumgärtner**  
Sound Visualization **Stan Studios**



**Where  
does that  
unmistakable  
AMG  
sound come  
from?**

# The archetypal AMG engine sound is legendary: deep, vibrant, emotional. A short trip into the interior of the AMG sound universe

# G

Gigantic V8 biturbo engines mounted on transport frames. Menacing metal sculptures, open hose connections, crude wiring harnesses. Tools in clinical-looking cabinets on wheels, long rows of shelves with spare and test parts. This is what it looks like when you're taken on a quick spin through engine development at Mercedes-AMG GmbH. Over there, two engineers discuss a component that one of them is pensively turning in his hands. Black polo shirts with white AMG lettering on the chest. The mix of high-tech and oily, hands-on travail has something of the fighter deck of a military aircraft carrier about it.

We're on the hunt. Searching for that quite mythical AMG engine sound. Deep, basso, almost brutish, and yet

pure, roaring precision. In this hall, however, it is almost silent. Only the soft murmur of the two technicians exists in the room. The clack of our footsteps on the dark tile floor. And from afar the seething roar of a test engine percolates through the walls; only the frequency, the evil staccato allows us to hear that an engine is being driven to its limits on the test bench.

Far away, a door opens. A narrow room in which the thick acoustic panels immediately swallow every sound. The anechoic lab virtually embraces you. It takes a couple of seconds for your brain to account for the lack of any acoustic stimulus in its spatial orientation.

Large speakers stand at the edge of the room. A series of expensive studio headphones is placed on tables in the middle. This kind of technology is usually used in professional music recording studios. Dr. Marcus Hofmann explains, "We know how an AMG sounds. That's easy. Almost no other manufacturer has this cool, exquisitely unadul-



The pragmatist  
**Ralph Illenberger**

Head of Exhaust System Construction, teaches the AMG engines to sing.



The theoretician  
**Dr. Marcus Hofmann**

Head of Acoustics and Vibrations, tracking the secret of the AMG sound.

tered sound. But we should analyze what makes that sound. What is its DNA?" The scope of Marcus Hofmann's task is the total comprehension of all technical oscillation operations at work in a car. Vibration, noise, and, naturally, the engine sound as well.

# O

On a large wall-mounted monitor the young acoustical engineer displays a spreadsheet, the AMG sound library. All V8 models and existing competitors' models are categorized here in various situations: the sound at idle, under acceleration, during a smooth pass, during a rapid pass. Hoffman points to the headphones in front of us. "Fancy a quick quiz? Let's see who can guess which engines I'm playing for you." Seconds later a roaring V8 thunders in our headphones — deep, guttural rumbling, singing turbochargers.

G 63 AMG?

"Right!" Marcus Hofmann nods, impressed. "The side pipes are simply unbeatable.

And this one?"

A lusty entrance, unabashed revving, and in a few seconds an aggressive, red-hot hammering arises out of the deep drumming.

Almost simultaneously the three heads, listening with deep concentration, shout, "C 63 AMG! It's definitely the large aspirated engine!"

Hofmann claps his hands in pleasure. "I'll give you one more."

This time it's a technical-sounding V8 with little change in tonality; from the somewhat sterile low revs until the clanking sound near its speed limit, it sounds downright two-dimensional and compressed. We look at one another, uncertain.

"That's not an AMG, is it?"

Hofmann nods smilingly. Then, with a few clicks he projects a brightly colored chart on the wall: "This is what a Campbell diagram looks like. What you're seeing here is something like the acoustic fingerprint of an AMG. The speed increases from left to right. The pitch is displayed on the vertical axis. Blue

means that the frequency at this speed sounds soft. Green is louder, and yellow or red are even louder. At low speeds the low frequencies are prominent, and at increasing speeds the higher frequencies."

Dr. Marcus Hofmann looks in our direction, positively enthusiastic — and is met with questioning, uncomprehending eyes. On the other side of the room another AMG engineer is laughing out loud. Ralph Illenberger is responsible for the construction of all AMG exhaust systems: "Even at AMG, I think Marcus Hofmann and I are the only people who are not only able to understand a Campbell diagram in theory but also practically read it. We glance at it and see how the engine sounds based on the pattern of the frequency distribution." We stare at the colored diagram. The magic of engine sounds is right in front of us for us to read, yet cryptically encoded: Whether ugly or shrill, whether it has beautifully rising and falling frequencies or ones that cancel each other out. Whether the frequencies are in harmonious balance. Whether it sounds plain and simple, or whether it positively gives you goosebumps. Whether it delivers annoying, finger-nails-on-the-blackboard moments, or too many anodyne, boring moments. Ralph Illenberger explains further: "We know precisely which parameters and factors shape the sound. Just as an example, take these classic American eight-cylinders that we know from films. They get their warm V8 stroke from the two-valve construction technology that existed at the time. It damps and, together with the low speed level, gives rise to a soft, relaxed sound tapestry. It's an entirely different matter with our four-valve engines. High engine speed, enormous exhaust pressure, high exhaust velocity — without a bulky exhaust system with precisely timed connections between the manifolds, our engines would sound tough as nails, with a positively brutal stroke."

The room is completely silent. We listen excitedly. "The displacement and the firing order also play a huge role. A Ferrari V8 has its famous scream at high engine speeds due to the fact that it is actually made up of two side-coupled

four-cylinders if you consider its firing order and firing angle. This results in a very specific sound that you might also recognize in souped-up motorcycles. This mathematics of timing plays no small part in the sound of a typical AMG engine as well. Here is where that powerful, muscular rumbling originates," Illenberger explains.

He continues to lecture, choosing his words carefully. About how you should make modern turbo engines loud enough to be heard over the strong dampening effect of the turbocharger to begin with — and how, in a second step, the resulting engine sound will then be modulated. What sort of influence various vehicle construction methods have on engine sound, how the same engine in the steel chassis of a C 63 AMG sounds completely different in the aluminum body shell of the SLS AMG. The ways in which the sound of the engine moves into the interior of the car and is radiated there, the legal rules that must be adhered to, and what role the positioning of the vehicle plays: a raw, unmistakable gripping sound in the ultra sporty Black Series, a brawny and finely modulated sound in those AMG models that at the same time are designed for the highest driving comfort.

Illenberger smiles: "With some cars it's clear that the sound has to go to eleven. And that's something we definitely dare to do. With other cars it would simply be inappropriate. After 800 kilometers on the highway, even the most beautiful engine sound would just be stressful. Therefore we discuss at length the right balance of emotion and comfort." In the end it's clear: the characteristic AMG sound comes about through 90 percent expertise and analytical procedures. These guys know exactly what they're doing. And then Illenberger and Hofmann smile knowingly at each other: "The final ten percent is instinct. At the end of the day, the most important attribute of the AMG sound is emotion." Suddenly Marcus Hofmann plays a couple of digital sound clips, partly aggressive and pumped-up, partly relaxed and grooving. The sounds overlap in layers. "That's how the SLS AMG Electric Drive might sound soon. Who says that the AMG sound has to fade as we enter the digital age of the automobile?"