Thank you for the friendly introduction and for the invitation to share with you some ideas about architecture and its relationship with the automotive industry. One of the most striking aspects of this relationship is the different speed of development. In 1931, when Le Corbusier wanted to show that his Pavillon Suisse in Paris was really leading edge aesthetics he had the building photographed with a car in front of it. [1] At that time this car certainly represented the state of the art in technology. Today, it has the charm of an oldtimer, while the building could pass for a new design, especially if you look at the main façade.

If we take a contemporary pairing of car and house, it is obvious that the aesthetics of these two artefacts have developed at different speeds and even into different directions. [2] My selection of the house may be a little polemic. But this actually is architecture dating from 2002, designed by Rob Krier and Christoph Kohl, built in Helmond, Netherlands. That Krier and Kohl are allowed to plan similar designs all around Europe proves that a substantial number of customers don’t have any problems to live in a house like this, while driving a car that looks like a 1930ies model would seem bizarre to most of these people. Some car manufacturers had to learn this lesson the hard way like e.g. Chrysler with its notoriously unsuccessful PT Cruiser model.

Apart from extravaganzas like this, today’s automobiles proudly present themselves as the beautiful face of the machine age. The effort that is invested into the design of this beauty is enormous, at least compared with architecture. I guess that the time and manpower it takes to design the radiator grill or the mudguard of this BMW Z4 easily exceeds the time and effort architects may invest into the design of an entire single family house.

While architects usually struggle with the fact that they do not have enough resources to perfect their ideas, automobile designers have the opposite problem. They are always in danger of exaggeration. The burlesque is sometimes only a small step ahead, if you look e.g. at this drawing [3] I found on a Russian website of an improved version of the Z4, improved at least in the eyes of the “nouveau riche”. The Austrian artist Erwin Wurm has uncovered the obese soul behind the superficially healthy body of many of today’s sports cars in his “fat car”-series of sculptures. [4]

As bizarre as this object may seem, reality is not that far off, take for example the recent study by Daimler for the Maybach Fulda. [5] I do not envy the future owners in this case: I find it rather amusing to imagine a vehicle like this moving slowly through a traffic jam on a Saturday afternoon back to Stuttgart, every inch
of it giving the impression of ultimate speed and ultimate freedom, creeping on the highway bumper to bumper.

But maybe this is just pure jealousy from an ignorant. All things considered, we have to admit that the car has managed to become the leading idol of our advanced capitalist culture, an impressive career if we take into account its humble beginnings.

This image shows Filippo Tommaso Marinetti, the leading figure of the Futurist movement, in his Fiat in 1908. As an object, these early vehicles rather resembled horse-carriages with an engine, but they fascinated artists and architects not through their form, but through the new experience of space and time they offered. Marinetti crashed this car in a spectacular accident in 1909, which did not prevent him from declaring in the “Futurist Manifesto” he published the same year that [quote] “a racing car adorned with great pipes like serpents of explosive breath is more beautiful than the Nike of Samothrake” (a famous ancient sculpture).

What attracted the futurists essentially was not new forms, but rather a completely different concept of beauty. Another quote from the “Futurist Manifesto”: “We affirm that the world’s magnificence has been enriched by a new beauty: The beauty of speed.” Futurist sculpture and painting laid the foundations for much of what we still regard as the aesthetic representation of the machine age. Take for example one of the most famous results, Umberto Boccioni’s “Unique Forms of Continuity in Space” from 1913 [7], or a painting by Giacomo Balla from 1914 [8] that directly deals with the automobile: “Abstract speed – the car has passed”.

Architects too were fascinated by the new machines. You probably know this famous page from Le Corbusier’s book “Towards an architecture” from 1923 [9], where he compares the development of the Greek temple over a period of almost 200 years with the rapid development of the automobile within just 15 years: On the left you see the Hera-Tempel in Paestum from the 6th century bc. and a Humber from 1907, on the right the Parthenon and a Delage from 1921.

Le Corbusier’s primary interest here is the question of type: He argues that architecture under the condition of the industrial era should learn the lessons from industry on how to achieve perfection by engineering as a quasi-natural process of artificial evolution. He could have taken any other industrial artefact for that purpose, but he instinctively chose the automobile, which he recognized as the upcoming idol of the industrial society. Accordingly, it is not by chance that Le Corbusier named his standardised concrete skeleton house “Citrohan” as a reference to Citroen [10] and his project for replacing the old center of Paris with new skyscrapers “Plan Voisin” after another car manufacturer. [11]

If the automobile industry was regarded as a role model for
architecture in the early 20th century, as these examples indicate, what then is the reason that the two fields developed so differently? A major reason can be found in the rise of industrial design as a separate field of practice. Until the late 1920ies cars had either been hand-crafted luxury goods or mass-market artefacts that were developed by engineers with entirely pragmatic goals. It was this very pragmatism that fascinated architects like Le Corbusier, who expected that the engineers would free architecture from the idiosyncratic formalisms of academia. Henry Ford would have agreed. His famous quip that “any customer can have a car painted any color that he wants so long as it is black” meant that aesthetics had no influence whatsoever on his product. As a matter of fact the formal differences between the model T of 1914 and the model T of 1926 are marginal [12], in spite of massive changes in the scale of production. By 1922 Ford had moved his factory to a new plant in River Rouge [13] mainly designed by the architect Albert Kahn, which was the largest industrial facility of its time with more than 120000 employees.

At that time, Ford had a market share of over 55 percent in the US. The competition cleverly recognised the utilitarian attitude of Ford as his weak point. In 1926 General Motors established an “Art and Colour” section of its operations that deliberately worked on transforming the mass produced car from an utilitarian object into an object of pleasure. This campaign was so successful that by 1930 the market share of Ford had dropped to less than 30%. From 1930 onwards cars became the beautiful face of industrial capitalism, less functional maybe than the Model T, but certainly a greater pleasure to look at, take for example this Buick from 1938 [14]. Of all machines the industrial society had brought about, cars were definitely the most paradigmatic objects. Lets take two more 20 year steps: a Buick Roadmaster from 1955 [15], and a Buick Riviera from 1972 [16]. In spite of all the incremental technical improvement, these cars are just fancifully enhanced versions of the machines Filippo Tommaso Marinetti fell in love with, machines proud of their explosive breath and mechanical power.

This concept of the car as the beautiful face of industrial capitalism worked well until the early 1970ies, when the oil crisis and a rising concern for environmental issues made industrial capitalism suddenly appear as a threat rather than a promise. The new challenge for the automotive industry was to disengage itself from the first machine age it had epitomized for more than half a century.

The industry successfully achieved this goal through clever marketing and through the massive integration of digital technologies. Today’s cars are cybernetic masterpieces, depending on their computers as much as on their combustion engines. Like in digital capitalism, control is the magic word that makes all the difference. It is no surprise that one of the most
striking recent inventions in automotive construction was developed by a company that is famous for its sophisticated treatment of sound waves. [17] Bose, the producer of high-fidelity speakers, was hired by the German supplier Bosch to investigate the physical limits of damping systems in cars in the early 1980ies. After delivering the results, Bose went on to search for a new solution to the problem and after 25 years of research presented a damping system based on linear electromagnetic motors that comes close to the physically possible.

With reference to yet another field of science car manufacturers today speak about “genetic codes” that govern the form of their cars and guarantee the immediate recognition of a brand. [18] This does not mean that chief designers are not important any longer, but more and more they become high priests of these “genetic codes” rather than inventors of new forms. As today’s cars are the incarnation of the second machine age and of digital capitalism, produced and marketed by a vast industry that in Germany is employing 15 percent of the nation’s workforce, with only a handful of manufacturers left, technical or aesthetical revolution is by no means in the interest of the industry. In most cases, the task is limited to incremental change.

In this respect, architecture has an advantage: At least theoretically, every new project gives us the chance for a fresh start. Let’s look at some of the flagship buildings German car manufacturers have commissioned over the last years from this point of view. The first project is a rather unfortunate example, in spite of its big expectations. [19] Volkswagen used this image in an advertisement campaign with the following caption. “WITH ITS INSPIRED ARCHITECTURE, 27,000 SQUARE METRES OF TRANSPARENT GLASS, ACRES OF PARQUET FLOORING, GOURMET RESTAURANT, VISITOR’S FORUM FOR CULTURAL EVENTS, THE WORLD’S LARGEST TOUCHSCREEN, AND AN AIR OF PROFOUND CALM AND SERENITY, YOU’D THINK IT WAS HOME TO UNRIVALLED WORKS OF ART.” Then you turn the page, and are presented with the object this building was all designed for, the Volkswagen Phaeton. “IT IS.” A work of art. The problem here is that the building actually is an uninspired combination of motives taken from museum designs of the 1980ies and 1990ies. The scale may be impressive – acres of parquet flooring, thousands of square meters of glass – but there is no relationship to the aesthetics of the Phaeton. One could argue that the building is as boring as the car, but this would be unfair. Unfortunately the building is not boring at all. With its superficial aesthetics it fails to live up to the courageous attempt at radical understatement that the Phaeton is notorious for. If Volkswagen had commissioned an architect like Peter Zumthor to create a shrine for its flagship product it maybe would have been successful.
Other manufacturers were more lucky in the selection of their architects. BMW and Mercedes will soon open the two most spectacular architectural objects of the year in Munich [20] and Stuttgart [21]. Both can be regarded as bizarre mutations of the “genetic codes” of BMW and Mercedes, transformed into architecture by Coop Himmelb(l)au and Ben van Berkel, respectively. The BMW-world looks as if the Z4 model has dissolved into a metallic cloud, while the Mercedes museum is even more self-absorbed and over-engineered than the cars exhibited inside. From a pragmatic point of view, these buildings are definitely absurd, creating spaces of questionable usability with a maximum of cost and effort. But pragmatism is no criterion here. These buildings are cathedrals of religions in disguise, offering a glimpse of what their brands would actually achieve if they were allowed to transcend their self-imposed limitations.

Probably this strategy will work fine for the time being. On the long run, though, there is a danger of mutual damage [22]. As fascinating as these buildings may be, customers may some day ask themselves whether the cars offered here are as bizarre and excessive as the buildings. Didn’t they simply ask for mobility, and what they got is rolling fortresses, equipped with an abundance of electronic gadgets? From that point of view, the spectacular new buildings in Munich and Frankfurt may unintentionally be nothing else than built versions of Erwin Wurms’ s fat car. [23]