

It's up to you to make it swing

dialogues - english

My name is Mütter; I come from Binz in Ruegen. I'm a construction engineer. I studied in Dresden at the technical university, and designed a bi-directional curved hyperbolic structure for my diploma, which we afterwards also built.

I returned to Binz as a construction engineer and in 1963 I started working, with a team of up to a hundred colleagues, on concrete shell construction projects.

We were one of the first to use the Torkret method. At the time, was not at all common. It came from the USA, where it was used for renovation.

In the 30 years from 1963 up to 1993, we designed and built about 50 reinforced concrete shell structures.

I was sometimes asked to define the strength of our company, and I always replied: our workers - Pomeranian farmers' sons, men of few words, but willing to work all the harder for it, and who travelled around the world and back with me.

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You have to guess the height.

There's a yellow thing. That's high enough.

Yes.

There's the yellow line.

Yes.

We can get out here.

Should we let it down a bit?

No, we've got some steps.

Look. Watch out...I'm going to turn the motor off.

That's technology for you.

You're right there.

Do you still do pull-ups?

No. I'm too fat. Come on out.

Oh God.

*

I started with Mütter's company.... when was the wall built? '61?

In '61.

Yes, after the wall was built.

I started in '62, but I had already been in the business for a while by then.

I started in June '62, I think. There weren't so many of us then. We held our meetings in your carpentry workshop.

Yes, in the workshop.

(Sitting on the stove!)

When we started with the concrete shells, we excited a lot of interest.
That's true.

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The time was ripe for change. A teacher's house was built with a concrete shell dome, the Ingenieur Hochbau Kombinat were putting up some interesting buildings in Berlin, and the television tower was built. Our Ahornblatt construction fitted into this development perfectly.

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Let's get up these steps.
I'd better take them fast.
... pensioners!

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Now look at that!
Otto Möller used to drive that bus.
That's Klaus Schnitt, and that's Horst Baecker.
That's Hans Gips. He's died.
I think I was part of the team by then, too.
Of course you were!
That's our bus.
Ohh! Berlin!
Berlin.

That's how we transported our concrete. We didn't have much in the way of technology in those days! We would load it onto a lorry, and then shovel it off at the other end.
GDR-Policy

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Would you put a cover on the motor?

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Supporting structures consist of several elements. One element is a plate, like this tabletop. The next is a vertical disc, made of concrete or glass, or another material altogether. Then we have the vaulted form - curved in one or in two directions, which makes up the shell. This is the ultimate in our line of business, and possibly of supporting structures in general, because it's a very rational way of directing energy.

I devoted myself to the most complex form – a double vaulted shell with a negative Gaussian radius, which means one curve in the one direction, and then a second in the opposite direction.

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This post-war school of modern engineering construction was hugely celebrated on an international scale, and that we had our own player was of course fantastic. We could never have afforded an original Nervi or Candela; luckily we didn't need them, because we had our own master. Mütter was not always fortunate enough to work with good architects, but when he did, he created forms that visually lifted off – beautiful forms that practically took flight, and that fitted the Zeitgeist. The elegance, the thinness and perfection of line, the materials – all criteria which defined good design at the time could be realised with this formal language.

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I was, well, let's say I worked on a lot of levels. I would come in the morning, and get on with whatever there was to be done, building models, for example. The models were set up so that we could do tests on bearing capacities. I had worked for a glazier before, so I could do the glass cutting here as well, which was useful. Whatever Mütter planned, we got it done. I can't think of a situation where we weren't able to solve the problem at hand.

In those days, all these prefabricated concrete estates were going up, whole satellite towns of them, and the idea was to introduce some architectural variety. The Hyperschalen spanned huge surfaces, and they were fascinating. That led to a lot of experimenting worldwide. Mass production was never my thing, just doing the same job day in, day out. A bit of thinking, working things out – that was ideal for me.

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We built many models. You could take a sack, pour a sugar and water mixture onto it, and then form it into the shape you wanted. Once, in the Cliff Hotel, we used a baby sheet to work out the shape of the swimming pool. With the swimming pool, we were wondering what kind of roof to build - a gable or a dome, when I had the idea of making a hanging shell. We took rubber sheeting, nailed it in place and then loaded it to get the form. Using sand proved problematic, so we laid it out with tiny mosaic tiles, which made a nice, sweeping, hanging membrane. Of course, you have to be able to get rid of the water that collects there, so we had the idea of putting in an outlet that would hang down the middle.

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First, we would calculate the form of the shell, and work out which degree of curve we had to have to reach which effect. There were no architects involved in building this bus stop in Binz, for example. It was a purely functional form. We built it as thin as we could – we had to save on materials anyway and we were always pushing the limits, trying to reach the optimum. So the shell was six and a half, or seven, centimetres thick.

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I was at the right place at the right time. We needed something sweeping, something with a little verve in contrast to all these prefabricated blocks, and Mütter was the guy with the verve.

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The bar was here on the left, and the coffee bar, cake buffet and ice cream bar were here. It was a very nice place to sit. I think it seated around 80 people.
You could buy the same things then, as now, but of course, they were much cheaper in those days. An ice cream dish cost about two marks, three at most. A pot of coffee was just two marks.

At the time, it was something special. It was always full, both upstairs and downstairs. Sometimes entertainers performed here but it was mainly a seating area. The dance floor was downstairs.

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This is the second shell I built.
We installed a flat roofed building here. As you can see, we made an effort.
It's probably state property now because they couldn't find a buyer. It's very nicely situated – on the beach, and definitely a good place for a youth organisation. This is one of the sleeping huts. Let's walk this way a bit. There are a couple of huts along there.
These are playrooms for the children. Two floors, made of concrete, partly sprayed.
The concrete construction is still standing. There's a nice view of the sea. It's amazing it's still in this condition, considering it's been out of use for 10 years,!
The Bodden has almost washed our foundations away.
There's a piece of the roof in the sea.
These were on the walls. I'm sure we designed these ourselves too; there would have been six bulbs screwed in here.
They were here on the wall. Maybe they looked a bit different built in.
I think that has to go over there.
We fixed them like this on the wall.
Everything was built for the kids.

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In the socialist world, the chain of provision and supply dealt almost exclusively in large units. These days, our shopping centres, despite their size, still differ from the socialist concept of a trading unit. Some of Mütter's buildings are empty because they were built for a specific demand that no longer exists, and because converting these buildings is a high-risk proposition. To a certain extent, some of Mütter's structures fell foul of the social changes wrought by the fall of the GDR.

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This is for my rainwater system. I can direct the water into the barrel or channel it elsewhere. I saw it recently in the DIY store. It's a good thing.

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That's my lock-up.

I've lost a lot of hair since then!

That was the best spraying equipment at the time: West German technology.

This shows the first steps building the lifesaving tower. This is the first positive formed with sand: we poured the negative onto it, and then turned it around. That's how all the shells were made. There was always an upper and a lower part, which were joined together right here.

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That must have been in the early seventies.

That scaffold was good.

We were building close to Junker's house.

Was Junker the town's planning director, or from the Ministry?

He was from the Ministry.

We built him a swimming pool, didn't we?

Yes, at the weekends. I was working on a shell. I went home on the train with all my tools in my rucksack. I was in a hurry, I can tell you.

There you are.

No shirt, and ignoring all the safety regulations as usual.

*

I exercise every day since I stopped working. At work, I was always active.

Now I have to do something else to keep fit. I've been doing this for the last three years –an hour every morning.

*

This is the building site in Wolfsburg. We worked with the Zeiss Company, and built a planetarium. It was our first job in West Germany. They didn't trust us to do the job properly because although they had plenty of experience with the Torkret method, they had none with this particular technique. They had supervisors watching us all the time, making sure we followed the regulations. They didn't believe that the building would hold up – or last.

Is it still standing?

Of course it is!

The dome was a three-quarter dome, with the bottom segment missing. Here you can see the beginning of the grid and the nadir.

Here, you can see the grid is finished. There's just enough space for the heads to poke through.

It was fascinating to see how the last link came together at the top. It fitted perfectly. We worked exactly to plan - each bar had a number, and we had to fit each one in exactly the right place.

Just the one mistake would have meant it wouldn't have met at the top.

The grid gives the dome its form. We built armouring onto the outside and the inside of the grid and attached a fine wire mesh, something like chicken wire, between the two layers. This mesh caught the concrete, which we sprayed on from both sides. It was important to build up one ring on top of the other; if we had sprayed in one sweep up to the top, the whole thing would have collapsed under its own weight. We sprayed certain rings repeatedly so that the individual layers could harden, and then worked slowly upwards.

This is Tripoli. The planetarium is in that dome behind the palms. Martin Haase and Adolf Marschalk had already started the spraying. We were the second team to arrive, and were there to do the large surfaces.

Across the street from us was Gadaffi's house - the white building with the blue towers. He actually lived in a tent, but this was his residence.

This shows the last step of the Torkret work. You can see how steep the surface is.

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I was never worried he wouldn't come home. The first time he went abroad, to Libya, we weren't married, and he was worried that they wouldn't let him go, but they did. It was the woman's lot. They just had to put up with it. We did bring presents back home with us, things that had some curiosity value.

I bought a pretty dress back for my daughter's confirmation.

There was that pen case from Finland. That was something special, the real McCoy.

After we got married and had our daughter, he never had any problems travelling abroad.

Some people were envious. Even today, if someone dies, people say that he must have caught something abroad. Really, it's true.

*

Well...if the government allowed you to go abroad, which was seldom, most people though it was an honour, and it was, I suppose. I didn't really believe it until I went. Not many of us went abroad, especially from the construction industry.

*

My husband always worked away from home. I had to do everything here.

I was alone with the children during the week. My husband only came home – sometimes - at the weekends. Most of the time, you were away.

Get off, Max, you'll get tar on your legs.

I was in Libya for exactly a hundred days. Then we went to Wolfsburg to build the planetarium. Some people in the next room were spying on us. We didn't know it at the time.

There was a process called „assessment“. The mayor would write an „assessment“ of your behaviour, and if something negative came up, then the authorities wouldn't let you leave. After my assessment was through, I could have been made president, that's for sure.

The mayor said there was a spy here in the village. I said „Who? I get along with everybody“ and he said, „That's what you think“. We still don't know who it was. It's probably better that way. It could have been anybody. Erwin, Uli, and Erich are dead. Maybe it was one of them.

Never mind, it's history now. Forget it.

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There were attempts to get rid of me as the boss of the company. A Mr Gutschmann managed a small construction company across the street from ours. He came over one Monday morning to borrow one of our compressors. I asked him about some rumours I'd heard, and he admitted that there had been talks about merging our companies, and that he was going to be the new boss and I was out. I went home for breakfast and told my wife there was trouble brewing. Then I wrote a letter to Rostock, which I gave to a lorry driver to deliver personally, because otherwise it would never have arrived. That sort of thing was filtered out. The letter was to the chief secretary of the regional council, who had once awarded me a bronze order of merit for construction, and who valued our work highly. That set the machinery in motion.

They then decided that our colleague Mütter would indeed be the boss of the newly merged company, and they transferred comrade Gutschmann to a dairy in Bergen. It was one of those cliff-hanger moments.

The people in Rügen would have had Gutschmann under their thumb. Luckily, we were slightly more important for the DDR, and made more money too, so the people in Rügen lost some of their influence. The district council's chief secretary once said to „You think you're so important. You sit here on your island with 26 passports in your safe and dare to throw your weight around”.

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He was tough. He had an engineer's understanding of how to spot a niche. I asked a friend of mine why he didn't move to Berlin where the big deals go down, and he said, „because the grass in the provinces grows higher, and it's easier to keep your head down”. Some people prefer the provinces because they are left to work in peace. Then, if they are successful, they might come to Berlin. Mütter, I believe, saw his success in a similar way. He didn't call himself „the craftsman from Rügen” for nothing. It's not just vanity; it's a social reality for his type of character.

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The shell's pretty curved. It was straight in the middle, and the closer you got to the edges, the rounder it got.

They stole our planks by the lorry-load.

We arrived on Monday -

Our supply manager said we should have stayed at home because so much stuff had been stolen. He said we would never get the job finished.

Then we saw that they had used our planks for the balconies on the new block opposite.... but we cleared it all up decently. Nobody was arrested or anything like that.

Look at those safety shoes.

I never liked doing that, and I was no good at it either. Twist the tie and it breaks off in your hand.

Those popeln They kept the gap size regular.

*

If we didn't want to do something, he would get angry: „Go on home, I'll get another company, other workers, to do the job for me”, but we wouldn't put up with that either.

On a building site in Libya, I destroyed some supports for which I'd drawn up the plans myself. They were almost finished. They were going to pour the concrete the next day. I arrived there at ten in the evening, and didn't like what I saw; they simply weren't up to scratch. So I took a sledgehammer and destroyed them.

The next day all hell broke loose – „somebody's destroyed our work!” but there was no discussion; the whole point was to come up with something new.

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He didn't spare himself either. He came to the site in his good suit and didn't mind getting his smart shoes dirty, wading through wet concrete. He was always up-front about things.

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It was never just a job; it was also my hobby. Even if things didn't always work out as planned, especially in the last few years when the company went bankrupt. That was a very bad time. I was never a great businessman; I never paid too much attention to the financial side of things. I was always primarily a technician. I should have been tougher; have sacked certain people who had been with us for a long time. I shouldn't have had such a strong social conscience. Sometimes we built and weren't paid all of what was owed; 10 percent of a big sum is a lot of money. There were a few occasions where we were tricked, so it was tough.

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I oiled it before winter set in.

When the firm went bankrupt and sold everything off, they were going scrap this lorry. Nobody had paid any attention to it. My son found out about it, and convinced me to buy it back. It's pretty useful, particularly on farms.

This is a kind of emergency solution. After we get the dung out, they'll use it as a feed silo.

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Helmut Neudert made this.

It's a test model. We would load it and then measure the weight distribution.

You can give it a good thump.

So I'll take my model.

What is it made of?

Concrete.

Concrete. Sure!

We've put the trestles here for you.

Great.

You can push them together if you like.

I am putting together an exhibition, which will probably first show in Nuernberg. Anne here will be assisting me with the composition and installation. We plan to exhibit some of these models, some of the old, very nice 60 by 60 photos that I have here, and some new ones in 50 by 50 format, taken of the buildings as they are now.

It is all a question of time. I have no desire to rummage around in my past for the rest of my days. I want to carry on working.

*

He has a real love of building, and becomes restless when he has been away from a building site for too long. You can see building as a kind of compulsion; a sickness; even a hereditary one; I can think of plenty of cases where fathers have passed it on to their sons! I think you can easily divide architects into two camps – those who love being in the thick of things, and those who prefer to stay at the drawing board.

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We worked out that all this has to go. These supports will carry the load; the support arm should be extended here. Let's take a look again from downstairs.

They sold the Teepott along with a number of other state owned restaurants, and it was left unused. Then the state stepped in again and got architects to come up with a decent modernization plan. There will be a museum in the basement and a bakery and a restaurant on the ground floor. Unfortunately, they are building new walls right up to the ceiling upstairs, so they can use the upper floors to their full capacity.

*

In colour! Look at that.

That's a real maze. We used to call it „chicken“ steel – we were afraid it wouldn't hold and kept adding extra pieces – better safe than sorry.

You were good at that; that was the only thing you were good at...

Come off it! I was always in the thick of it!

Nobody works like that any more – all that pressure, and without any protection, no gloves or helmets. That hose - you were finished if you didn't hold it properly.

It was always impressive to see the buildings standing free like that, without the shells.

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What happened with the Ahornblatt and the multi-purpose building in Rostock Lüttenklein taught us a lesson. The value of the building plots means that unless we come up with new solutions for the future use of our buildings, eventually they will be pulled down.

The Ahornblatt was not pulled down because it was technically faulty or because the structure was dangerous, but because it was built on a large and valuable site.

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I had never been so intensively involved in a Berlin debate, and I have to say that, in the end, I

lost the thread of the proceedings. It was never clear how the decision came about. Some peculiar beaurocratic procedure meant that, despite the fact that, apparently, nobody wanted the building pulled down, in the end it was.

-Kafka.

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