

# THE MAKING OF A MILL MAKER

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For Wolfgang Mock, ideas for new mill improvements often come out of the blue, while he's driving his car or lying in bed. In those moments, he quickly records the idea and moves on.

"I think the idea over before I go to sleep. If it's a good one, I get up and start to draw. But if I feel that the idea won't work, I simply fall asleep." Wolfgang says.

But coming up with ideas is not a problem for Wolfgang Mock. He has plenty.

In a five by five meter room attached to the test kitchen at his company in Otzberg, Wolfgang puts his ideas to the test. Together with his collaborator of 20 years, Thomas Mohr, he experiments with mixers and millstones, looking for ways to make a mill more efficient and affordable, while producing even better flour.

"I'm like Steve Jobs," he says, with a playful smile on his face, and continues to explain that he never takes "no", or "I don't think that will work" as an answer.

More often than not, he is right—and he has the track record to prove it.

Since building his first mill in the 1970s, the mill maker has started two of the best-known mill companies in Europe, HaWo's and KoMo, and designed mills for many others. After selling mills mostly in specialty and organic stores, in his third company, he is going after the larger public with [Mockmill](#), a stone mill attachment for stand mixers with a Hobart attachment hub, such as KitchenAid or Electrolux.

So, if you've tried a European-made home mill, you might very well have used one of Wolfgang Mock's designs.

"I think 70% of all the mills sold in Europe are mills I designed." he says, "Even Schnitzer, a company older than ours, asked us at KoMo five years ago to produce mills for them."

I met Wolfgang in his home, a century-old German Hof in the village of Otzberg-Lengfeld near Frankfurt.

The building that once was a farm (with livestock, a slaughterhouse, and even a distillery) now hosts a small community of families and like-minded people. Paul Lebeau, Wolfgang's neighbor and partner in his current company, describes the concept as a "holistic, humanistic but thoroughly modern lifestyle" with more pianos than TV sets, where people are free to share as much or as little of their lives as they like. Everyone in the Hof has his or her privacy, but when someone sits down at the long wooden table in the shade of a large chestnut tree Wolfgang and his wife Elfriede planted when they bought the place, others are invited to join.

Children from one-year-olds to early teens share the yard, and at night, it's not uncommon to find your son or daughter arranging a sleepover at a neighbor's home. In the morning, if your curtains are up or your keys are hanging in the lock outside your front door, you might hear a knock from a friend wishing to borrow a few eggs or use your oat roller.



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The Hof, which the Mocks have been building for the past 35 years, is for them a project of a lifetime—and also a part of the reason for the couple's focus on the mill making business.

But to get there, we first need to go back to the seventies.





One of the common themes I notice when I talk to craft bakers is that many of them didn't start their professional lives with a career in bread making in mind. I have listened to former engineers, teachers, and people from many other professions tell me how at some point in life they realized that bread making was the thing for them.

Just like them, Wolfgang Mock, too, didn't start out planning to become a mill designer. You could say flour and milling found him, rather than the other way round.

When this happened, Wolfgang was a young psychologist working at an institute for early childhood autism he had helped found, developing methods to help parents better communicate with their autistic children.

*Wolfgang was a young psychologist working at an institute for early childhood autism he had helped found.*

"For my birthday in '75, last century, a good friend of mine brought me as a gift a loaf of bread he had baked himself," Wolfgang says.

"I ate this bread, and I thought: Wow, this is good! I asked him, 'How did you do it?'"

The friend had a mill—a big, heavy, hand-cranked one bolted to a bench. Wolfgang had seen the value of nutrition in his work and was eager to learn more about the benefits of freshly milled flour and baking his own bread.

"I went to him, once a week, to fill a big box with freshly ground flour. At the time I didn't know anything about just-in-time milling, so it seemed good enough," he says.

Since then, Wolfgang has been making bread. At the Hof, he invited me to bake bread with him, Paul, and [Pablo Puluke Giet](#), an enthusiastic young baker who is teaching the mill maker some new tricks and helping him develop a wholegrain-based bread-making course for the company.

As we mixed our doughs, Wolfgang told me how he always used to tell people how bread making was all about taking care of the bacteria in the dough as well as in the gut.

"The dough is not resting. It's our friends, the bacteria, doing their work," he said when we covered our doughs for their first rest.

One day, the friend with the mill told Wolfgang that he and his wife were leaving on a nine-month bike tour all the way to Cap Verde in Africa and asked if Wolfgang wanted to borrow the mill while they were gone.

"I used the mill every day. It was hard work," he says. "The next Christmas, when they were still in Africa, we decided to make Christmas cake, the very famous Nürnberger Stollen. I worked at the mill for five hours!"

Wolfgang was already captivated by milling, so when the friends came back from Africa ("They really came back!" he exclaims, laughing), it was time for him to buy a mill. Looking for relief from the hard work of cranking, he decided to go with an electric one and chose a French Samap mill.

"It was like a little tower made of cardboard. Two stones rotating at 3000 times per minute—it's a very fast one—but the main thing was that the air they used to cool the motor, the hot air, was also used to blow out the flour into a capture vessel.

"After a while, I said, 'Wow, this isn't a good mill. It's like first cutting an apple into pieces and then using a hairdryer to make them brown.' Hot air, lots of oxygen.

"So I started to think about my own mill."

Wolfgang brought up the idea to an old friend, Harald, who thought it sounded like an exciting project. And so, the two got to work. Meeting on weekends and learning as they went, the duo slowly built a stone mill with a wooden enclosure to suit their milling needs.

"One and a half years later, we had our first mill. My oldest daughter said, 'You could call it HaWo,' based on our names," Wolfgang says.

For Harald, making one good mill was enough—he wanted to be a university professor—but Wolfgang felt like making more of them. So, he founded his first mill company, HaWo's, and went to work on his own, with Elfriede's support.

Wolfgang continued improving the mill, sourcing components from companies all over Germany, and the two assembled them in their small living room in Darmstadt while maintaining their day jobs. Elfriede worked as a special education teacher, and Wolfgang as a psychologist, also teaching seminars on intercultural communication for the German Foundation for Developing Countries<sup>1</sup>.

"I always remember the best day we had, Elfriede and I. We started early in the morning, at 6, and finished at 10 P.M. We had built thirteen mills! Because we wanted to go on holiday the next day," Wolfgang says, with Elfriede nodding in agreement.

"We made the mills, and then I wrote a letter to maybe 120 organic foods shops," Wolfgang says. "'Hey, we've developed a mill for you, and we have a nice price. The mill costs X to make. Let's divide the difference between X and the price you will sell it by two. Half for you, half for us.' I knew nothing about business."

But it wasn't just the business that was new to Wolfgang. He was also breaking new trails in the world of mill making.

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1 Unlike the other teachers, he finished his seminar days by teaching participants how to make sourdough bread!



As we sit at his kitchen table over coffee with a mixture of milk and cream, and some of Elfriede's cake, I ask Wolfgang how he knew what to do and where to start.

He again shows me his whimsical smile—at another point in the discussion, he tells me that the older he gets, the crazier he becomes. The man wears a combination of humility and ambition, self-deprecating humor and confidence that makes him irresistible. Wolfgang is the kind of man who can be serious one minute, focused on milling the right amount of flour for his bread course and start making music by opening and closing the mills' covers the next.

He takes a deep breath and tells me, "I do not know. We just did it."

Then, after giving the question a little more thought, he continues, "I always have the ideas, and look for people who work better with their hands than I do."

For a one-man company making mills in the living room of a small third-floor apartment in Darmstadt, finding suppliers wasn't always easy. Like when Wolfgang was looking for a motor supplier for his mills.

He sent letters to seven companies, asking for an offer for 1,000 motors per year, and one by one, representatives from the companies visited him to discuss the details.

The men in suits sat at the edges of their seats, stiff, glancing at the Ché Guevara and Bob Dylan posters on the walls of the Mocks' living room.

"Maybe they were afraid we'd glue them to the chair!" Wolfgang says, laughing.

Out of the seven companies that all promised to make an offer, only one did. And so, with that company, Wolfgang went to work on the motor.

"We had a long discussion with him because he didn't believe in our technique," Wolfgang says. "Because we moved the motor shaft up and down. If the shaft goes up and down, and

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there's the stone at the end of the shaft, and above the motor, you have a wheel to turn a little bit, then the shaft is the only moving part."

"The more moving parts, the more parts that can break," he says enthusiastically and goes on to explain the details of the invention that became an important part of not only the first mill but many of his later ones as well.

Unfortunately, the first batch of motors were faulty, and the shaft wouldn't move. And as it often goes, Wolfgang only noticed this after he and Elfriede had carried the motors up to the third floor!

Hands bleeding (the motors had sharp edges), they brought the whole batch back down and returned them to the producer for some fixing and fine tuning. With the next batch, the idea worked.

Just not in time for the party that Wolfgang and Elfriede had planned to celebrate the first mills, inviting the people involved in making them as well as many friends. So, because of the problems with the motors as well as some mistakes the carpenter had made in drilling the hole through which the grains fall on the millstones, they had a party but no mills!

"But we had a nice party. It was very nice." Wolfgang says.

And some weeks later, when the motors and woodwork had been redone, production on the first HaWo's mills could begin.



A few years later, in the early 1980s, Wolfgang and Elfriede spotted a notice in the local newspaper about an old farmhouse for sale in Otzberg, not far from Darmstadt where they were living at the time. The notice didn't even include an address but sounded promising: an old farm with a lot of room and a big yard—lots of space to renovate and convert into apartments for a community of friends they envisioned.

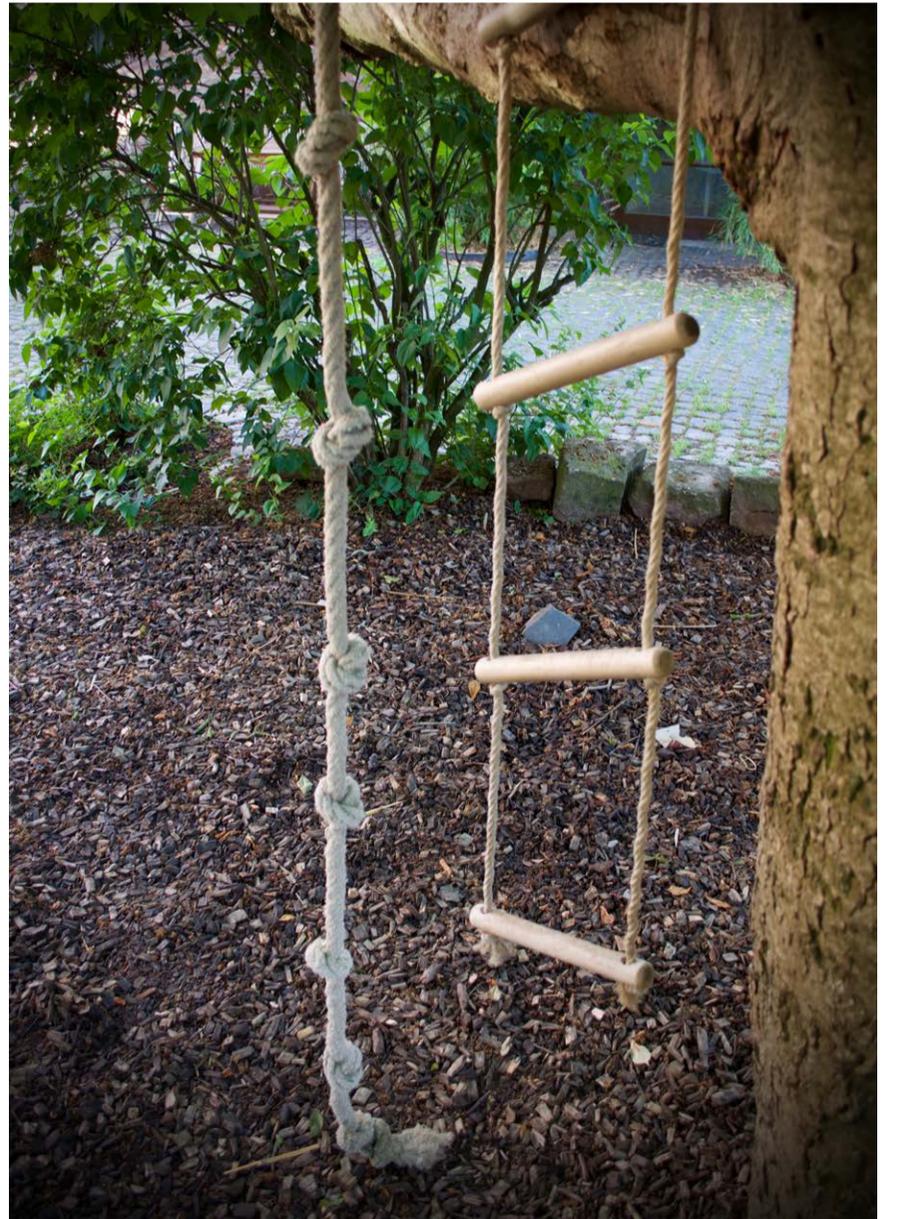


Intrigued, the couple drove to the village, peeking into courtyards to see which of them was the one for sale. When they finally found the right place, there was no going back. In 1982, after lengthy negotiations with banks afraid to loan money to a young couple with no savings, to buy an old house badly in need of renovation, they moved in.

"For a while, I built mills in the main house," Wolfgang recalls. "Then we converted the dairy barn into a workspace and moved there."

Creating the community they had in mind when they bought the farmhouse was a lot harder than the Mocks had expected. It took some false starts and many years of refining the idea before the right people had moved in and the group as a whole had found a way of life that worked for them—a perfect balance of individuality and community.

"It was only about twelve years ago that the dream started to become reality," Wolfgang tells me, and I can't help but admire the perseverance in believing in the dream during all the years of uncertainty.



Luckily the mill business took off faster, and soon, the mills were selling in the thousands. Wolfgang found himself in a position where he needed to decide what to do with his career. While his work with autistic children was rewarding, Wolfgang also found it tiring. He realized he enjoyed mill making and the act of creating he found in it even more.

“It was a job where I could develop something,” he says. “The best time for me is when we’re creating a product, right up until it’s ready. Then it starts to be boring.”

He made his decision and then, as a first step, went from his full-time job to being a freelancer—with the same patient group, just not so many of them. And then, as the mill business grew, he gave up first his work as a psychologist, and later, the communication seminars.



At the heart of a flour mill is the millstone—a technology that is thousands of years old but which still, perhaps surprisingly, has the potential for further development.

When Wolfgang and Harald started designing their mill, one of the first things they did was to go looking for millstones. They found a company that made stones for big gristmills and agreed to produce the small stones for the HaWo mill.

It was an efficient stone pair that could grind 500 grams of grains a minute, much more than made sense with the small motor in Wolfgang’s mill (or a home mill in general). So, underpowered, the mill got stuck and stopped almost immediately. Once again, Wolfgang found himself faced with an interesting problem in need of solving: how to prevent too many kernels from entering the mill at once?

The first solution was a wooden screw to limit the flow of grain to the stone. It worked, but Wolfgang wasn’t happy yet.

"I told Harald: that's not a good idea. We need a stone that will not pick up more than 100g a minute," he says. "So we talked to our supplier and told him that we needed to change the stones. And he did it."

The new shape worked, limiting the flow of grains without the need for any extra moving parts—a common theme in Wolfgang's mill design philosophy.

But there was another problem: the stone material wasn't strong enough. When there were tiny stones in a bag of grains, as sometimes happens, they could break pieces off the millstone, which would end up in the flour.

"It didn't matter for the bigger mills because they were used by farmers to feed their cattle. But when people started calling me and saying, 'I have a problem with my teeth,' I knew it was time to change that," Wolfgang says.

A friend told Wolfgang about the use in medical equipment of a ceramic compound for bonding *corundum*, an extremely hard mineral. Sensing that this material would solve the issue with his millstones, he went looking for a company that could use it to produce such stones for them.

"We found an abrasives company in Austria and told them we need a corundum stone bound with the ceramic material. They developed one for us. I went there to assist in the development, I think, three to five times, and finally, the stones we got worked well. Three to four years later, the competitors did the same," he says, telling me that still today, ceramic-corundum millstones are standard for small-scale stone mills.

Many years later, when developing his current product, *Mockmill*, Wolfgang was again faced with a challenge involving the millstones.

"The first time we tested a prototype stand mixer attachment with stones was 10-11 years ago," he says. "It didn't work because we used the flat stones we were used to. The motor simply stopped."

That was because the KitchenAid motor, which isn't all that powerful, simply didn't have the power required to rotate the stones as they worked flush against one another. The solution came from an unexpected place:

"Years later, we developed at KoMo a hand mill that was supposed to be used by small children in Kindergartens," Wolfgang recalls.

"So we considered the stones: how can we develop a millstone that requires less power?"

In the end, they managed to create a new shape that required only 30% of the power needed by the original flat stones. Then, Wolfgang remembered the mill attachment he'd been working on years earlier and asked Thomas to try the new stones in it.

"Just as we saw with our very first stones, when the mill produced 500 grams and then stopped, there was an overload problem: we had to change the surface and the structure of the stone. We did that, and it worked. We made the stone so that the machine could work," he says.



Listening to Wolfgang tell his story, one thing that becomes clear is that when he decided to take on the adventure of mill-making—even if he didn't know it back then—he didn't choose the easy path. Well-respected in his field, he could have had a much less turbulent career as a psychologist and educator. But he doesn't complain. Maybe that's not what he was after, in the end.

As anyone who has ever run a business will know, choosing the right business partner is crucial—and it isn't easy. Wolfgang had to learn this the hard way when, in the mid-1990s, after trying to bring HaWo's to the next level, he was forced to give up his share of the company and start over.

But thanks to his ideas for a new and improved mill, and strong support from the German organic stores, he didn't take long to return to the market.

From 1980 to 1987, Wolfgang had spent a lot of time to develop a German-wide organization for shop owners, distributors, and producers—"a lobby organization for natural food" as he describes it. He had also used his experience in communication to teach shop owners how to better communicate with customers.

"I used all I learned in teaching the people headed for the developing world. I put together a 7-part series of seminars, looked for people to present them, and taught them how." Wolfgang says.

Now, in 1995, as he was starting again with a new mill and tight finances (without the money for tooling, Wolfgang tells me, he had to push his imagination to create a perfectly fitting wooden thread for the mill's hopper) he found that the work he had put in back in the eighties, without asking for anything in return, proved its worth.

"In response to my queries, former customers said, 'We've always sold mills from Wolfgang, and we will still do that now.'" he recalls.

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Wer Mühlen kennt, kennt Wolfgang Mock

WASSENAAR VISUAL

*"Who knows  
mills, knows  
Wolfgang Mock"*

Wolfgang was impressed by the response, and so, when he launched his new company, Wolfgang Mock GmbH, and his new mill, Fidibus, that thought became a slogan: "Who knows mills, knows Wolfgang Mock."

As he tells me this, Wolfgang points to his kitchen wall where the poster sits, framed, next to his grain dispenser—and a Fidibus mill.

Even though the Fidibus was originally sold under the Wolfgang Mock brand, most of us know it today as a KoMo product.

Soon after leaving HaWo's and going on his own, Wolfgang got a call from Peter Koidl, who had been the HaWo's distributor in Austria before the changes in the early 1990s.

"I was free of HaWo's, so I told Peter, 'Sure, we can work together again now.'" Wolfgang says.

The two felt comfortable working together, and about five years later, they founded KoMo as a sales company for the products Wolfgang was developing and building.

"On that middle table there, we produced every day between 80 and 100 mills. Thomas and another guy. We made it so easy to produce mills that it took about 5-6 minutes to assemble one." he recalls.

Everything was going well for KoMo, and Wolfgang Mock GmbH had been practically put to sleep.

Then things got complicated again. Thanks to the new millstone, the KitchenAid attachment developed a decade earlier was finally working, and driven by a hope to reach a larger audience, Wolfgang wanted to bring it to the market.

In the end, Wolfgang sold his 50% share of the company and hurried back to the Darmstadt authorities to reanimate the business that he had been preparing to close down.

"That was it, but in between, it was a lot of fun," he says.



From left to right: Paul Lebeau and Wolfgang Mock

Wolfgang is approaching seventy, but he isn't done with starting new projects and going after new ideas. His answer to my wife when she commended him on having started so many things in his life is revealing.

He hopes to start many more!



Today, Wolfgang is as passionate about home milling as ever. Paul Lebeau joined his company as managing director at the beginning of 2016, and together, the two are taking the business to a new level.

But what is it that drives them?

At this stage in life, the goal mostly isn't monetary. The two men want to create a business that they can be proud of and that can enable them to work near their families. They want to build a product they believe in.

"35 years ago, I told people I want to see a mill in every household, every kitchen," Wolfgang says. "That's still the dream. Still the idea."

Paraphrasing Michael Pollan's statement from his book *Cooked*, he tells me: "When we invented white sugar, it was a big sin. But when we started to make white flour with roller mills, we went beyond any reasonable borders for our health.

"That's what he wrote, and that's what I also believe. It was the biggest mistake ever."

"I always tell everyone at every trade show that I don't care if you buy a mill with another brand. The main thing is you buy a mill, or use a mill. I will be very happy if they buy our mill. But if you don't like our mill, the main thing is to grind fresh. Because, when they ask me what the difference is between this or that mill, I say, it depends on you: What shape do you like, how much money do you want to spend?"

"But why is it important for everyone to mill fresh flour?" I ask Wolfgang.

"I would say they don't need a mill if they buy old lettuce, if they give old flowers as gifts, if they cut up apples and eat them two weeks later, and if they pour a beer and drink it after six weeks. Then they don't need a mill. But at the same time, they want their beer fresh, they want their lettuce fresh, they bring fresh flowers.

"They should do the same with grains because all the aroma, all the necessary nutrients, as we now know, are in the germ and the bran. And in the roller mills, those valuable parts are removed and sold to the animal feed industry. And what you have left over is just this white flour."

Now, with Mockmill, Wolfgang believes he can help bring the idea of freshly milled, 100% extraction, whole-grain flour to the general public.

"We were always working in this small organic foods 'village'. Some percent of the German people buy in an organic store. It's only a small group. We wanted to go into the big wide world to bring this just-in-time milling to more people." he says.



*"All the aroma, all the necessary nutrients as we now know, are in the germ and the bran. And in the roller mills, those valuable parts are removed and sold to the animal feed industry. And what you have left over is just this white flour."*



To succeed in this market, mill makers have to rethink their products and the way they build and sell them.

“The dream would be to produce a mill that costs no more than 150 Euros and is better than the wooden mills, produces better flour. That’s the dream. That would be a mill for everybody.” Wolfgang says.

While he believes it will still take a long time, “maybe 20 years,” before we see a mill in every kitchen, using the stand mixer motors already found in millions of homes to power a stone mill is a smart step on the way.

“We’re appealing to the thousands of enthusiasts mastering artisanal baking to consider including just-in-time milling in their set of capabilities and skills. Those of them who have invested in KitchenAid, Kenmore, Electrolux and AEG mixers can start right away with Mockmill.”

And the dream, it’s more than just talk.

In addition to an abundance of Elfriede’s artistic creations, the Mocks’ home is filled with products designed by Wolfgang—“I only use mills I’ve designed myself”, he tells me—from mills to grain dispensers to oat rollers.

The strongest proof, however, came on Sunday morning, when at breakfast, Wolfgang’s nine-year-old granddaughter stood up, measured 300 grams of whole grains and ground them into flour for her pancake batter!

That natural gesture seemed, to me, the perfect example of how a life built around fresh grains can not only be good for us but also help people—including children—appreciate the simple joys of doing things themselves!



For more information about Wolfgang Mock, his company, and the Mockmill stone mill attachment, visit the [company’s website](#) and [Facebook page](#).



**Bread**  
magazine



ISSUE **NINETEEN**

*This article was originally published in the  
Summer 2016 issue of Bread Magazine.*

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