

KuBus 72

The Art of Brewing Beer

Authors: Albert Knechtel & Felix Sorger

00'15"

Even Dante knew that "God does not condemn drinkers." And certainly not brewers. After all, in the Middle Ages it was primarily monks who brought the art of brewing "liquid bread" to Bavaria. Atop the hill in Weihenstephan, a district of Freising near Munich, Saint Corbinian founded a Benedictine monastery in the eighth century, thereby establishing one of the world's oldest breweries. Today's Corbinian is named Werner Back; and he's an internationally recognized institution when it comes to brewing.

00'48" Professor Werner Back, TU Munich/Weihenstephan

"There used to be a monastery in Weihenstephan. Corbinian is the founding father of monastery brewing, because earlier, beer was brewed almost exclusively in monasteries. For the monks of yore, it was very important that they had something nutritional when they fasted."

01'15"

On "Nährberg" hill, people are proud of the pious monks' legacy. The tradition even helps with marketing: the Bavarian State Brewery of Weihenstephan, founded in 1040, calls itself "the oldest active brewery in the world". Weihenstephan is special for another reason as well. It is the center of brewing science.

01'45" Professor Werner Back, TU Munich-Weihenstephan

"It's definitely no accident that brewing instruction began here, where the world's oldest brewery is standing. This is where the research and teaching breweries were built over a hundred years ago and where brewers from all over the world were taught. And with our new research and teaching brewery, we also have the newest, most modern brewery."

02'12"

The new research and teaching brewery is the jewel in the University's crown, a high-tech toy from the beer Pope, Back, and his disciples in the department of Brewing Technology. It was christened in March 2006, just a few hundred meters from the world's oldest brewery.

02'30" Professor Werner Back, TU Munich-Weihenstephan

"Of course beer is a science! We work with organic raw materials, which always vary according to origin and year. It's relatively easy to produce beer; it's more difficult – and this has been the focus of our research in the past few years – to produce a lasting and stable beer: beer which is stable in taste, stable in foam, micro-biologically stable and which also possesses good chemical and physical stability."

03'05"

Back's motto is stability: the modern Corbinian has an excellent reputation in the world of brewing. Anything having to do with beer means Back! He has published several books on the highly complex subject.

03'27"

The Department of Brewing is part of the Technical University of Munich. On the green campus in Weihenstephan, a science center has been erected which is unique in the world.

03'40" Professor Werner Back, TU Munich-Weihenstephan

"Many people say that Weihenstephan is the Mecca of the brewing craft. We're very proud of that, of course. A lot of people really do come from all over the world to learn the craft of brewing from us."

03'54" Fei Qian, Chinese student

"With a degree from here, I will have very good chances for a good job in China because the TU Munich, or Weihenstephan, has a very, very good reputation among brewers the world over. Every brewer dreams of being here just once. That's why I'm not worried about my future."

04'23" Benjamin Bailey, Student from the US

"With this training, we have very good job opportunities in chemical plant engineering construction, and in the food and pharmaceutical industries. We're very flexible and well-rounded here."

04'45" Lucero González Castro, Colombian student

"In Columbia, there aren't brewing departments. These exist either in Europe or the United States. I decided on the land of beer because I think that you can best learn to brew here."

05'04" Lucero González Castro, Colombian student

"The program here is harder than I thought it would be because there's so much to learn: all of the economic subjects and then the purely mathematical and physical subjects. On the other hand, we also have a lot of chemistry and then, of course, brewing itself. Brewing is fun and I like learning it. For me, chemistry isn't that difficult because I had already learned a lot of it in nutrition science. But I find the math and physics pretty hard."

05'48"

Speaking of math and figures: Germany, the land of beer, boasts approximately 5,000 brands. And rural life in chilly Bavaria? What do our future experts think of their new homeland?

06'07" Lucero González Castro, Colombian student

"The weather here in summer isn't so bad. And winter? Well, it takes a bit of getting used to, but after six years, I've acclimated and now it's not so bad."

06'21" Benjamin Bailey, US Student

"Yeah, it's true, I had a bit of culture shock. I thought, okay, I have a diploma in German, I can communicate in German; but when you go into a bakery here to buy a roll, they have no idea what you mean. You need to figure out the dialect a bit, and that takes some getting used to."

06'50" Fei Qian, Chinese student

"In China, beer is definitely not as important as it is for people in Germany, particularly here in Bavaria, where it counts as a basic food group. But when it comes to drinking beer, we are slowly on the way to surpassing the Germans."

07'10"

So Back and his fans seem to have a rosy future. Once a year, Back organizes the technological seminar.

07'18" Professor Werner Back, TU Munich-Weihenstephan

"I would like to extend a hearty welcome to our 39th technological seminar."

07'25" Professor Werner Back, TU Munich-Weihenstephan

"... stability of taste ..."

07'28" Professor Werner Back, TU Munich-Weihenstephan

"... malt quality ..."

07'30" Professor Werner Back, TU Munich-Weihenstephan

"... water management ..."

07'35" Professor Werner Back, TU Munich-Weihenstephan

"... seasoned brewing ..."

07'37" Professor Werner Back, TU Munich-Weihenstephan

"... ammonolysis ..."

07'46"

The technological seminar is a continuing education program, so to speak, focused on "barleycorn soup", otherwise known as beer. This year, there are brewers from 25 different nations eager to let Back bring them up to date on the newest techniques.

07'59" Lucero González Castro, Colombian student

"When I'm finished, I'd like to take this entire beer culture home with me. If I'm just one among many working in some large brewery, that's not good. What I'd really like is to open my own brewery and tavern, where I can brew my own beer, brewing as far as possible according to the German purity law. That's my dream."

08'25"

Ah, the dream of the German purity law, or, as Schiller says: *"Four elements, joined in harmonious strife, shadow the world forth and typify life."* At least the world of beer. The 1516 purity rule is the oldest extant food law. Only water, hops, malt and yeast are permitted in German beer.

08'47" Lucero González Castro, Colombian student

"I think it's good that only pure and organic products are permitted in the drink; that people aren't somehow adding chemicals but that it's really 'liquid bread'."

09'06" Archive, German Association of Brewers

"This is the protagonist of our film."

09'08"

The brewing industry's motto for decades: Beer is organic.

09'12" Archive, German Association of Brewers

"Our star is this cool, tasty drink. A world celebrity, German beer. A star of unrivalled popularity, diverse but not capricious. Its career has been steady and unique. Yes, our protagonist is simply a natural talent. Because nature is everything: the sun's vital strength, the continually renewed miracle of germinating and growing plants. The freshness and clearness of water. Modern chemistry could never achieve all this."

09'59" Professor Werner Back, TU Munich-Weihenstephan

"As you know, the purification process in the brewery is actually the most important thing of all. Brewers are the food technicians who understand the most about purity."

10'11"

Purity is simply the first commandment of brewing according to Back and his disciples the world over.

10'18" Professor Werner Back, TU Munich-Weihenstephan

"And that's good. We can rely on our beer. It's been proven to be one of the purist and cleanest of food-stuffs."

10'29" Archive, German Association of Brewers

"No one knows that better than a real chef. Beer tastes good on any occasion. Beer refines the taste of all dishes. Our protagonist is also an international star. That's right: German beer."

10'50"

And what about the German proverb: "Drinking beer with lots of pleasure results in girth quite hard to measure"?

10'56" Professor Werner Back, TU Munich-Weihenstephan

"The beer-belly is a myth. In fact, it doesn't even exist. If you compare beer to milk, wine or lemonade, it's actually a low-calorie beverage. And yet a lot of people say you have a beer-belly. That's just because beer makes you hungry. And if you're sitting in a tavern or beer-garden, you see that people eat heavy roast pork or pork knuckles with their beer. I think it's the appetite for heavy food which really makes people fatter. You actually get thinner from beer alone."

11'39"

Beer as a diet aid? Path-breaking and surprising findings from Back's magic cauldron. In the age of wellness, the beer Pope thought ahead and developed a beer to reflect the *Zeitgeist*: "Xan".

11'54" Professor Werner Back, TU Munich-Weihenstephan

"We actually didn't intend to develop a 'Wellness Beer'. The term only arose later in the brewery's marketing department. We're nothing but scientists and we wanted to add Xanthohumol, which can be found in hops, to the beer. But of course it was very useful to us when medical tests revealed that Xanthohumol has very positive effects. That's why it's generally a good thing if we have Xanthohumol in Xan Beer."

12'29"

Xanthohumol sounds as promising as it's alleged to be: the tanning agent in the hops supposedly fights the onset of cancer. Beer as medicine? Feel-good beer between the body lotions and massage oils? New feelings abound and new markets are opening up.

13'02" Fei Qian, Chinese student

"Maybe Xan Beer also has a future in China, because people there have become very health-conscious and value wellness. So I could easily imagine it."

13'19"

Xan goes to China. Back and his Weihenstephan brewing disciples are converting the wellness community with beer. Well then: Cheers! Incidentally, this is not entirely new. "Among beverages, beer is the most useful; among medicines, the tastiest; and among foods the most delightful," was something the ancient Greek Plutarch already knew.

13'45" End

<http://www.goethe.de/kubus>