

#### NORBERT SATTLER and AUSTRIAN KAYAKING

"I like to paddle when  
the water is brown."

There exists in the center of Europe a mountainous region called the Tyrol. There the people wear decorative black lederhosen and hats with long, flowing white plumes and speak a relaxed, lilting form of German.

During the winter the Tyrol has some of the best skiing in the world. But when the snow melts and turns to water, the Tyrol then has some of the world's best whitewater.

Thus, there exists a breed of athlete who skis during the winter and paddles during the summer. In fact, there is an old legend that skiers invented canoe slalom so they would have something to do during the summer. Over the years, Austria has produced a number of athletes of this sort, and Austria has won the World Championships in K1 slalom more than any other country.



Years of downriver training are evident in the powerful forward stroke of Norbert Sattler (Kevin Clifford Photo)

Norbert Sattler is one of the very best of them. One of the best big water paddlers ever, he is also the most successful slalomist over a long period of time. His World Championship career began in 1969 and is still going on. He is still a major threat to win an important international race. Sattler was World Champion in K1 team at Merano in 1971; Olympic Silver Medalist in 1972, individual World Champion in 1973; Bronze Medalist in the individuals in 1977 and Silver Medalist in Team; winner of the Europa Cup in 1978; Silver Medalist in team in 1979. There is only one paddler with a better record, East Germany's Siegbert Horn, who won everything Sattler won, as well as the Olympics.

Sattler is at his very best on very hard whitewater, the kind you find when the rivers are in flood ... when the water is brown.

### Tradition

Why have the Austrians been so good in kayak slalom over the years? Norbert Sattler thinks there have been many reasons:

- \* Austria is a small country and people who follow sports at all know who the top Kls are. This helps with financing.
- \* Austrian Kls always get a lot of international experience.
- \* The country has a lot of excellent big water rivers and other training facilities, such as places to go cross-country skiing.
- \* It's easy for the top boaters to qualify for the team each year. This is because the pool of slalomists is very small and thus the top paddlers don't have to worry about getting bumped off the squad. Thus, they can train the way they think best.
- \* Small squad. There are no logistical problems that are inherent in managing big teams.

There are a lot of good river runners in Austria, but they don't race. They are a separate group. It is perhaps the supreme irony, but in Sattler's view, racers usually don't come from places where there are really good rivers. People from those places usually become good river runners. The best racers start out in places like Vienna and Klagenfurt -- where there is no whitewater -- not Spittal where there is whitewater. They start out on lakes and then move to bigger and bigger water until finally they run the really big stuff.

## Getting into Whitewater

Norbert Sattler was born October 4, 1951 outside of Klagenfurt, Austria, and was raised in Klagenfurt. He is 66 1/2 inches tall, weighs 152 pounds and has a resting pulse of 42. He uses paddles of various lengths depending on the type of water. The range is 206 to 208 centimeters.

Norbert's father and mother were touring paddlers and this was Norbert's introduction to the sport of canoeing. His father was an engineer but is now engaged in a small real estate business. The family lived near the Worthersee, the large lake in Klagenfurt. As a boy, Norbert did a lot of swimming there. One year, his father built him a little kayak out of aluminum. Then, he needed a place to house it, and this is how he discovered the local club, the KVK (Kanu Verein Klagenfurt). Norbert surfed the waves on the Worthersee in his aluminum kayak for about a year. Then he started running whitewater. His sister, Barbel, started paddling at about the same time as Norbert.

### How he started racing

It was really just by watching the other boaters in the KVK that Norbert began to pick up the rudiments of paddling. In the spring there were training camps for whitewater racers, run by Kurt Presslmayr, who was to become World Champion in K1 downriver in 1963 and World Champion in both slalom and downriver in 1965, the only person ever to win both at the same time. Sattler started going to these camps at age 11-12. He attended his first camp in a foldboat -- fiberglass boats were just coming in then.

Presslmayr made a training program for all the juniors, but "we really learned by watching each other," Norbert says. After watching the 1963 and 1965 Worlds, both held in Spittal, Austria, Norbert decided that whitewater was something he would really like to get serious about.

### First Race

Norbert's first race came when he was 13. At this time, 3 top Austrian paddlers had recently been killed on rivers and everyone in the sport was paranoid. One had been killed at Spittal when he ignored the usual safety precautions of wearing a helmet and life jacket, capsized, failed to roll and had to swim. When he came to the surface, he was knocked unconscious by his boat and drowned. Another had been killed in Merano when he tied himself into his boat in order to get better control. He was pinned against a boulder and couldn't get out. The third was killed in a hole at Steyr.

For these reasons, youngsters were not allowed to start racing before the age of 14. But Norbert decided he wanted to race at 13. In order to be permitted to race, you had to pass a doctor's examination, and on the forms to be filled out, you had to state your age. Norbert got the doctor to say 14 instead of 13. His first race was in Graz.

In 1965 Norbert won the Austrian junior national championships, beating out Heimo Muellneritsch, later on the Austrian C2 team, who was fourth, among others. This was Norbert's first big win -- and he was not even of legal age to be racing (his 14th birthday was that fall).

From 1965 to 1969, Norbert won a lot of junior races, both slalom and downriver races. He won the junior nationals in both, but never in the same year. One year at Lofer, however, he started a downriver race ahead of Uli Pech and Pech eventually passed him. This is when Norbert finally decided to give up downriver and concentrate on slalom. He was generally better in slalom anyway.

During all of these early years, Norbert was based in Klagenfurt where he was in school. He was enrolled in a technical school. There were two parts to the course. The first, which Norbert completed, taught you how to make industrial tools. The second part, which he never passed, taught you how to be an engineer. He quit school before he could finish because of the Olympics in 1972.

In 1967 Norbert really didn't try out for the Austrian team because at that time the Austrians didn't consider juniors material for the Worlds. Thus, no one even thought of encouraging him to try for the team. Besides, in those days, selection to the team was a complicated matter: you didn't just go out, win a team trials race, and make the team. You had to be appointed to the team.

Norbert raced in his first international race at Tacen in 1966. He also competed in other internationals that year.

In 1969, Norbert paddled mostly big rapids. There was a good one on the Drau River close to where he was going to school and whenever he had some free time, he biked the 20 kilometers (40-60 minute trip) to the river. His father would bring his boat and leave it there for him.

Norbert couldn't really put more than 5 gates there, however, because the Drau was too wide. He did have some suspended from a bridge. He also had some gates on the Worthersee in Klagenfurt. During the week he would go to the Drau, but he was pretty much the only one there. On weekends he would paddle with the others on the Worthersee.

His training at that time had some organization, but not a whole lot. He didn't do intervals then, nor did he do flatwater sprints, just general paddling.

#### Qualification for Bourg

In 1969, there were three qualification races for the national team. Prior to this time, juniors (up to 18), usually didn't run the same courses as the seniors -- some of the harder gates were left out. But in 1969, they all ran the same course. The race was at Schladming and Norbert was fourth against seniors.

The second race was at Steyr, on Presslmayr's home course.

Again, everyone ran the same course. Norbert won with a clean run and was a couple of seconds faster than Kurt. This was a terribly big deal, because Kurt was the reigning World Champion at that time.

But then he was sick for two weeks and had to miss the junior championships. He also had not even thought about making the Bourg World Championship team.

The senior championships were a week or so after Norbert got well. Since he had been sick for the junior nationals, his father, wanting him to race in some nationals, entered him in the senior race. The club kept quiet about it, however, because Norbert Sattler was not yet 18 -- not technically old enough to be a senior.

You guessed it. Norbert won. A lot of people were mad at him even being in the race and his father had to exchange some unpleasant words with the race officials. But the television and newspapers were there and played the whole thing up. Since he was now Austrian Champion, everyone realized that he had to be appointed to the World Championship team. But because he was so young, he was made the "reserve" or fifth man.

All the people on the team liked Norbert and wanted him to have a good experience at Bourg, even though they weren't contemplating that he would actually be in the Worlds.

In those days, the reserves were allowed to take the official practice run. Thus, everyone was telling Norbert, "Have a really good run." He did: it was the best of the Austrians, clean and "pretty good." Being clean and cautious was the key to winning then and this was what Norbert was good at.

There was a big meeting of the Austrian team. To this day Norbert doesn't know exactly what transpired except that when it was all over, he was entered in the World Championships. He was entered in both the individual and the team, even though he had never practiced with the other members of the team, Presslmayr and Gunter Tremba.

Norbert was clean on his first run, but was very low on gate 21 upstream. Other people made the gate much higher than he did by eddying out on the far shore and ferrying into it. Norbert had run it direct in practice with no problem, but there had been less water for practice runs. His second run was worse.

Still, Norbert was the best of the Austrians, finishing 21st. Being low on gate 21 had probably cost him a place in the top ten. In the team race, the Austrians were seventh.

#### Merano 1971

The 1971 Slalom Worlds were the first ones in which Norbert Sattler was World Champion -- and the last ones in which Kurt Presslmayr was World Champion. They both were on the same K1 team contingent which upset the East Germans.

Norbert's training at that time consisted of the following:

- \* A lot of big water paddling in the slalom boat. He did more of this than anything, more than gate work. It was usually at Spittal.
- \* 4 X (5 X 30") in gates with long rest in between. This, Norbert says, was an old East German workout, used especially right before big races.
- \* Long courses on recyclable whitewater; he did "gate loops" to make a full length course. He had 15 gates 7 km. away on the Gurk River. Norbert installed these himself.
- \* Flatwater gates on the Worthersee. At this time there were four gates there. People liked to swim there and they would pull the gates down. These were the only gates put up by the KVK anywhere.

During this period, Norbert was doing 2-3 workouts a day. But he was still in school. Early in the morning and late afternoons were when he trained. The three-a-days he did only on weekends, or maybe once during the week if he had some free time. He usually trained with his sister, Barbel. They timed each other. This was also the

time that Peter Fauster started training more seriously. He had been in the junior class in 1970.

The other members of the 1971 team race contingent, Kurt Presslmayr and Hans Schlecht, trained together in Steyr, but didn't train much with Sattler. Once in a while they did train together in Spittal, however. In preparation for the Merano Worlds, there was a two-week training camp in the spring and another one right before the World Championships themselves.

"We didn't think much about winning the team race," Norbert explains, "because Presslmayr was entered in the downriver, too." (He was one half second out of first place in the individuals.) "So when we won it was a real surprise." Norbert was 19 then, going on 20.

"It was early in the morning, and we were the first team off. Our start order was me, Presslmayr and Schlecht. We had quite a fast and smooth run. At the end I didn't think anyone had hit anything but we had three touches." That, however, was three less than anyone else and the Austrians won by 27 seconds over the East Germans. In those days the team runs were mixed in with the individual runs and the K1 team race came before the K1 individuals. In the individuals, the East Germans finished first (Horn), second (Doering) and fourth, (Bremer). The Austrians were sixth (Presslmayr), ninth (Schlecht) and eleventh (Sattler).

#### Winter of 1971-72

Norbert alternated between cross-country skiing and paddling during the winter. If it was too cold to paddle, he would do cross-country. If it was warm enough to paddle, he was usually in the slalom boat. The cross-country skiing consisted of running, but no intervals. On weekends, he would enter cross country ski races up to 50 kilometers in length.

Norbert started a lot of weight training during this time. He did heavy weights:

- \* Pulling and pushing
- \* Bench press
- \* Sit-ups with weights
- \* Circuits

He also did some running. "I'm not a very good runner, I'm better at cross-country skiing," Norbert says. He would run for 30-60 minutes.

Starting in October 1971 and lasting through 1973, Norbert took a course in the principles of training. The first part, lasting a year or so was in Klagenfurt.

#### Preparation for the Olympics

In the fall of 1971, Norbert got out of school and entered the Army in October. They told him he would be able to train for the Olympics, but it didn't work well and he got out in March of 1972. During this period he was training full time, the first time he was able to do this. From October through March he had been based in Vienna, but after leaving the Army he was based at home in Klagenfurt with his father supporting him. At that time, he received no money from anywhere else.

He kept a training log then, but subsequently gave it up because he felt he was spending too much time writing and not enough time training. At that time, he kept very careful track of the kind of penalties he took and worked on eliminating them. He found, for example, that he was very bad in offsets.

During the winter of 1971-72, he did a lot of 5 minute courses, usually 8-9 times a workout. He also did 10 X 1,000 meters in a wildwater boat. In general, as he recalls, he did more in the slalom boat then than now.

Norbert started the second phase of the course on the principles of training during the winter of 1971-72.

He also started serious power training that winter. The exercises consisted of bench press; bench rowing; chin-ups and rope climbing. From October through December he did heavy weights and after December switched over to circuits.

For gate work, he spent a lot of time on the Gurk, even during the winter. This was a new twist for those days because it was a tradition in Austria that gate work in the winter was not necessary. Kurt Presslmayr never paddled gates in the winter.

Also, Norbert did a lot of gates in Augsburg on the Eiskanal. Every month he would go there for about a week. He would have gone even more, but the Austrian canoe federation refused to pay for him to go.

#### The Olympics

I didn't really understand how big the Olympics were. No one pushed me or created pressure for me and that was good. It was completely different for Uli Peters and Alfred Baum (West Germans). On the train from

Munich to Augsburg the day of the race, I saw them sitting there shaking with fear. They were white.

I knew the course well. At that time it was a different type of racing. I always made sure whether the other guys were clean or not before I took my run. Often I would have Barbel run down to see and then tell me. I needed to know if I could afford to slow down and be clean. I knew that if I was clean I'd win. It's not the same now; everyone is clean.

On practice runs, we saw that no one had a clean run. So on first runs, I went for perfect boat positioning. But I missed the first reverse gate and had to come back for it. Except for that, I was fast. But I hit a reverse gate below the first bridge. Even so, I was winning after first runs.

I never thought about winning. I felt that Horn was too good. I felt that if I paddled well, I could get second.

On second runs, Norbert told Barbel to see whether anyone had a clean run. Horn had rolled on his first run and had missed some gates. Barbel found that Horn was two seconds faster than Norbert, but she couldn't find out whether he was clean or not (he had 10 penalties). Thus, Norbert had to assume that Horn had been clean, so he tried to really press it.

"When I hit gate 16, it was all over for me psychologically. I fell apart and hit some other gates, too."

But his first run was good enough to win the silver medal. That night, he went into Munich for TV interviews. He got back at about 10 p.m. -- and found he had lost his silver medal. He had left it on the dash board of the VW that had driven him to the interview. But Olympic medals have the winner's name and event engraved on the edge, so the driver returned it to the Olympic officials and they gave it back to Sattler. The newspapers played it up, though: "He won the Silver Medal and then he lost it!"

When he returned to Austria, he was something of a national hero because he was the only Austrian to win a medal in the summer Olympics. But the KVK club didn't really help him much. Instead of putting up more gates, they enlarged the clubhouse. They didn't change anything else. "They could have recruited a lot of new juniors then," Sattler feels, "but they didn't even try." He did, however start getting "Sportshilfe" -- financial assistance for athletes, paid by the government -- after the Olympics.

Norbert feels he did well at Augsburg for the following reasons:

- \* His big water ability.
- \* His ability to change speeds so that he could slow down and go clean.
- \* He had really good endurance. "I never got stiff forearms, the way a lot of the other guys did," he explains.

Norbert feels that the best way to practice for Augsburg is to train on rivers in flood. "For Augsburg," he says "you have to learn the timing of the surges. You always have to be completely under control at Augsburg. But NEVER STOP in boily water. If you do, the water will throw you off line. You have to make instinctive reactions to the surges. Thus, you need as many runs as possible on the course. I set records for running the course. But you have to watch out that you don't get tired. You probably need more rest than on a normal river."

"You also need a lot of power at Augsburg. If I race there in 1985, I'll do more weights, probably 2-2 1/2 months of power training. I've found that 2 months is all you need. You don't get any extra benefit from more. Power training helps a lot in big water. It allows you to train longer."

1973

Norbert Sattler now believed he was good enough to win the World Championships. For this year, he did a lot of bike riding, cross-country skiing, and circuits during the winter. "I was extremely fit for 1973." He trained with the rowers in Klagenfurt at that time, and found that he could do even more leg exercises than they could, even though rowing is predominantly a leg sport.

He had a man named Horsti Taupe who supervised the circuit training. Taupe was connected with the KVK. During the circuits the pulse rate was supposed to hit 160 beats a minute. The circuits were very hard. They consisted of 10 exercises. Taupe would allow the athletes 15 seconds at each station and they had to do as many repetitions as possible in that time. As they got into better shape, the time was increased to 45 seconds on each. When time expired, Taupe yelled "Stop!" and they would move to the next station. They did all 10 exercises three times. Circuit training was done twice a week.

The exercises in the circuit:

- \* Rope climb -- hands only.
- \* Sit-ups on inclined board with weights.
- \* Back-ups.
- \* Bench rowing.
- \* Bench press.
- \* Hanging sit-up.
- \* Jumping into the air.
- \* Pull-ups.
- \* Push-ups.
- \* "Bauchaufzug." (This is a gymnastic exercise. You hang from a bar, raise your feet to the bar; roll over the bar into the hanging position again.)

During the winter, a week's downriver boat training was as follows:

- \* 10 X 5 min. @ 80% with 1-3' rest between reps.
- \* 5 X 10 min. (c. 2000 meters)
- \* 3 X 15 min.

The intensity levels were determined by running times over the distances, not by pulse.

Sometimes he did flatwater intervals in the downriver boat during the winter. In Austria, it's just too cold from November to February to do slalom practice, so traditionally the Austrians have done downriver work instead, often concentrating on 500-1000 meter pieces on flatter water.

Sattler did LESS gate work in 1973 and more conditioning work than ever before. But this was not by choice; he was busy with school. He returned to school right after the Olympics and graduated in June of 1973. But because he had won a medal in the Olympics, the school allowed him to take some final exams in the fall after the Muota Worlds.

For 1973, he again had gates on the Gurk, Drau and Worthersee, and he started doing interval training on them with measured rest. He did this starting 2-3 months before the Worlds on both gates and flatwater sprints.

On the gates he did 15, 30, 45, and 60 second courses. He would start the next run when his heart rate had returned to 120.

In the spring of 1973, Norbert moved to longer intervals, about 120 seconds.

On the weekends, Norbert did mostly slalom work. Now he was training some of the time with Peter Fauster, who was to win the World Championships 6 years later in Jonquiere. But at this time Fauster was pretty lazy and didn't come to practice all the time.

In May, Norbert won at Zwickau in East Germany. The Zwickau race was viewed as a sort of pre-World Championship test then, used to see how you stood before going into the Worlds. All the important nations were there, and "it was like a Worlds." Norbert says now, "Zwickau in 1973 was the best race of my life."

Norbert won by 5-6 seconds. Christian Doering of the DDR was second. "I was sick at that race," Norbert recalls, "I had food poisoning. I had a temperature. It was bad weather, too, raining all the time. I slipped and fell into the water -- ice cold water -- up to my chest. The East Germans saw it and started laughing at me. I thought to myself 'I'll get you guys!'"

#### Muota Worlds

Practice runs at Muota were on low water. Sattler didn't like low water so he began to think his chances of winning were not good, especially since the East Germans were really good on low water. Furthermore, he was having trouble getting used to his new Prijon boat (the "Muota"). The new boat was too high. The Lettmann that West German Uli Peters used was lower. Also, the West Germans had some Kevlar boats that weighed a lot less than Norbert's boat.

But then the water came way up for the K1 runs and Norbert took heart! By the time of the race, the river was at flood level -- and the water brown.

On the first run, Norbert was fast but had one ten; Horn was two seconds slower but clean.

Norbert decided that if he could do the same speed and be clean, "I would win the Worlds."

He says now that he won the race on the S-turn behind the big Muota rock.

Lia Merkel (now Schilhuber) was sitting near the Muota rock, taking splits by herself. Barbel was next to her, listening to what she said and asked her what was the fastest way to do the S-turn. Lia Merkel said "You can do it best with one big sweep on the way in and go immediately onto a duffek stroke. Do it very close to the gate."

"Barbel told me this as I was sitting in the starting gate and I decided to try it. It worked -- I picked up 2-3 seconds there on everyone. That's where I won the race."

"I had a good run, but not flat-out. Without that move, I would have just had the same time as before."

Horn saw Sattler was ahead of him, so he sped up -- but had three touches.

Back home in Austria, Norbert was now even more of a hero. He signed autographs and got an invitation to go to New Zealand to train for the winter. In the fall of 1973, having finished metal worker school, Norbert started a sports teacher's course in Vienna. He stayed there for one year, training in Vienna, and on weekends in Tulln with the Wolffhardts.

#### Reasons Sattler Was Good

I was very good in long, hard slaloms in big whitewater. In those days, the races were in bigger water than now and it was harder to go clean. The hardest thing for me to get used to was the 10 centimeter rule (which effectively raised the poles and made it easier to go clean).

On upstreams and other moves, I tend to take a little pause between strokes. This is good on big water because the water is moving so fast that it's best to let the water do all the work. On flatwater, though, taking a break between strokes is bad. Also, on small water, you need to do shorter strokes. On the exit from upstreams, I tend to look back with the exit sweep. That's also something I picked up from big water paddling. You can get a really powerful stroke that way, but it makes for a slower transfer from the sweep to the duffek stroke on the downstream side.

In 1974, Sattler started getting into boat design, making suggestions for Prijon to incorporate into his boats. "We found that with the stern under the water the way it is with the Prijon, the boat wasn't much slower in a straight line, but it spun better."

Also, we wanted a boat that could sneak gates well, and do pivot turns. Sneaking was good for "Czech courses" (i.e., those that are very hard, involving turns against the water).

The bump in front of the cockpit that is so characteristic of the Prijons was put there to allow the legs to be drawn up closer to the body for pumping in the forward stroke. Since it was felt that you wouldn't be sneaking there anyway, that area could be higher.

We found that in the Prijons we could turn the boat up on edge to get a tight turn.

The idea of the Prijons is to have a long water line but still be able to spin well because of shallow ends. "The long water line makes the boat fast in a straight line."

We felt that the U-shaped cross section of the British Elites was harder to handle on big water; the boat bobbed around and was unstable. The Prijons, with their rounder cross sections were easier to handle. But I think people can now handle the U-shaped cross section in big water.

#### Year Round Paddling

During the winter of 1974-75, Norbert was in New Zealand and thus was able to paddle all year round. "But I'm not sure paddling all year round is best; I don't think it helped me as much as power training would have. For one thing, in New Zealand I didn't have anyone to push me. In 1978, when I was in Australia, I had Albert Kerr to push me." In Skopje, the water was quite low and the course did not favor Sattler -- it favored the East Germans who took first (Horn) and third (Gimpel). Norbert was sixth.

1976

In 1976, Norbert flunked the exams at the sports teacher school and decided that he didn't want to be a teacher. He started training full time for Spittal.

In the winter of 1976-77, Norbert did a lot of power training. Also, he often went to Rosenheim so he could train downriver with Degenhard Pfeiffer. "I got really fit." In the spring he did really well in downriver races. Slalom training started a bit later this year than usual. During this time, he trained a lot with Peter Fauster.

Now Norbert was not based in Klagenfurt any longer, having left the KVK and joined the Braunau club, which offered him more expense money. Norbert didn't really have a permanent base at this time; he kept moving around.

Norbert was disappointed with the effort that the Austrian team officials put into training the team in 1977. "There was only one training camp at Spittal," he says. "There were SIX qualification races that year -- too many. Only one of them was on the Lieser. Thus, when we could have been training at Spittal, we had to go to some 'flatwater' qualification race."

### Spittal Worlds

After his first run, Norbert thought he had had a perfect run, not thinking he had hit anything. But when he came up the bank, they told him he had 10 penalties. Even so, he was winning by 11 seconds. But since he couldn't find out how he had supposedly hit the gate, he protested the run. While the protest was pending, he got something to eat and got a massage.

When he returned to the race site, the Austrian team manager told him that he had seen videos of the gate in question and that they showed Sattler had not hit the gate. The manager told him the judges would see this and the protest would be upheld. (It wasn't.) Now Sattler thought he was winning the Worlds by 21 seconds. He got cocky. Little kids were swarming around him and asking him if he was going to win. He told them nonchalantly that he already had.

But the water dropped for second runs and the poles were very high. "That scared me," Norbert recalls. "Then I heard that Kerr and Forstl had great runs."

I sent Barbel down to see what gates I could sneak. She said they all were high and "you have to go fast." I did, but I hit gate 6 and then it was gone. I sped up more, but I hit more gates.

If the first run had been clean, Norbert would have placed second to Kerr by 2.3 seconds.

### Toni Kurcz and the Value of General Athletic Training

After the 1977 Worlds, the Austrians hired Anton Kurcz, who had formerly been the coach of the Polish team. While in that capacity, he had coached boats that had medalled in K1W (Cwierniewicz -- World Champion in 1975; K1 (Gawronski -- Bronze Medalist in 1973); and C2 (Jez-Kudlik -- Silver Medalists in 1975). He is a firm believer in the value of general athletic training: "On the course, you can never

know what you'll run into and many-sided training will help you out of surprises."

Anton is still a Polish citizen and commutes in and out of Austria to train the Austrian team. His primary responsibility is to attend training camps for the national team members. Secondly, he is supposed to travel from club to club to help bring on intermediates and beginners. In between these jobs, he goes back to Poland to see his family.

#### New Blood

Following the 1977 World Championships, there was a famous half hour television interview in Austria during which the Austrian paddlers openly criticized their coaches. Since the matter was given such widespread publicity, visible action was taken and Toni Kurcz was hired as a direct result.

Sattler says that Kurcz was very good in preparing for the 1979 Worlds.

Every trainer brings new things. Before Jonquiere, we Austrians trained together once in a while, but on the whole we weren't on the same schedule, not working together, competing against each other in practice sessions.

Another important point: "Kurcz was not Austrian and that helped him. He was a novelty because of it."

Kurcz's forte is conditioning. He doesn't see the paddlers much from August through February. Instead, he writes out training plans for them to follow. However, from time to time he will show up at little races during this period, or at marathon races the slalom paddlers have entered just for fun. After February, however, he begins to see them more in training camps.

Kurcz doesn't have a place to live in Austria, he's always on the move. There is no one central canoe center for him to live at. The Austrians prefer to train at home so Kurcz has to come to them.

#### Kurcz's Background

Anton Kurcz was born on June 13, 1937. As a youth his only interest was sports, particularly ski jumping. It was only after a ski jumping accident terminated his competitive career that he entered the Higher School of Physical Education in Warsaw, which "opened my eyes to the need for general training."

The academy taught the theory that before one specialized in event-specific training, it was physiologically better to engage in general all-around training. The human body, it was taught, would make faster progress later during the event-specific training if it were first subjected to a program of all-around fitness.

It was at the Academy that Kurcz learned of the concept of general athletic tests which had norms for world class athletes, a concept he transferred to tests for his paddlers.

"Give me good athletes, and I'll give you good ski jumpers," is a line from French ski-jump coach Honore Bonet that Kurcz likes to quote. Another one: "One-sided training does not interest me; man was not made to do only one thing."

It is never too late to start the process of general all-around training before moving into event-specific training, Kurcz says, although the earlier the general training starts, the better.

Kurcz warns, however, that a large volume of general training, such as the Austrians engaged in in 1979, "works only for people who already have good technique."

Since Kurcz has had the unique experience of heading elite training programs in two different countries, his comparisons of the Austrian and Polish systems is interesting. On the whole, he thinks the situation in Poland was better than in Austria, although ironically, there were fewer resources in Poland. The key differences:

- \* Centralized group training. In Poland the whole team trained together all year round. Not so in Austria where people were off by themselves most of the time.
- \* Contact with nature. In Poland, the weight circuits and athletic training facilities were located outdoors because this was cheaper than building a gymnasium. But this created a great environment because of being close to nature: "Our sport is close to nature."
- \* Mixed training. In Poland all classes trained together. Kurcz felt this was important because they all learned from each other. In Austria, there are very few canoeists.

#### Group Training for Jonquiere

In preparation for the Jonquiere World Championships, the Austrians trained together as a team more than they ever had in the

past. This, according to members of the team, was the prime benefit of having Kurcz as a coach. There were more training camps together and the boaters inspired each other to better performances.

"Peter Fauster and Edi Wolffhardt (who finished first and second at Jonquiere), benefited the most from Anton," Norbert believes. "Fauster loved to go hard in training, but he wouldn't stay very long. He'd show up, take a few runs, see that they were fast, and then go home.

He was very fast in short courses, but he was also very lazy. Anton made him train much more seriously and much harder.

Edi Wolffhardt had total confidence in Anton. Edi needs someone to reassure him and to give him direction. I need a fight to get me excited before a race, to get me going. But Edi is just the opposite. He needs someone to calm him down.

Anton did all of this at Jonquiere.

During the winter of 1978-79, Norbert was in Australia and when he came back in mid-March, he trained with the Dutch team, coaching them. It wasn't until April that he started training with Edi and Peter. Anton did, however, give him a training plan to follow in Australia.

#### Periodizing

Toni Kurcz divides the year up into three phases:

The "Accumulation Phase", which runs from the fall until February and during which aerobic development is sought. Little gatework is done during this period.

The "Intensification Phase", during which specialized slalom training is done. At this time, about 20% of all training is done on gates.

The "Transformation Phase", which is during the race period and begins roughly six weeks before the World Championships. There is no let-down after this phase; the athletes go right into the accumulation phase again.

The following is a more detailed look at the training the Austrian team did in 1978-79:

## ACCUMULATION PHASE

During this phase, lasting from October through February, the athletes concentrated on the following things:

- \* Downriver boat training. The Austrians did a great deal of time in the downriver boat. 500-700 kilometers was the range, with one person doing 1000. The Austrians believe that the extended hours in the downriver boat are necessary for several reasons. First, it is too cold for slalom work during much of this time. Secondly it's hard to practice slalom where many of the team members live since they don't have whitewater. Third, the first races of the season are downriver races and not slaloms. Fourth, the downriver boat is better for your forward stroke than the slalom boat. It teaches you a longer, stronger stroke. The faster you paddle in a slalom boat, the worse your stroke becomes. Lastly, the downriver boat is a better vehicle than the slalom boat for learning the proper balance.
- \* General conditioning. This followed a set weekly schedule:

Mondays and Fridays - weights.

Tuesdays and Thursdays - cross-country skiing, running, swimming, bicycling (in that order of preference). Cross-country skiing is good because it uses the arms.

Wednesdays - circuit training.

The weight workouts during this period consisted of the following exercises:

- \* Bench press
- \* Bench rowing
- \* Roman sit-ups
- \* Normal sit-ups
- \* Rolling up a bar
- \* Wrist curls for the wrists
- \* Pull ups with weights

A different technique was used on the bench press than on the others. It was as follows. First you determine what your maximum is on the exercise and then use a starting weight that is about 75% of that. Claudia Kerckhoff of Canada, who trained with the Austrians at

that time, gives the following example:

My maximum was 120 pounds, so I started with 90 pounds. I'd do 90 pounds 5 times; 95 pounds 5 times; 100 pounds 4 times; 105 pounds 3 times; 110 pounds 3 times; 115 pounds once. Then I'd try 120 pounds. If I made it, the next time I would start out with 95 pounds, instead of 90. This was called climbing the pyramid and lasted until January 1. Thereafter, we did exactly the opposite, starting with the heaviest weight and working down. We did this until we got outdoors in March.

For the back arches and sit-ups, Claudia did 20 pounds 10 times, for 3 sets, with a 3-4 minute rest between sets.

The running sometimes consisted of a long (1/2 hour) warm-up; 10 X 100 meter sprints, with 100 meters easy between each sprint; 1/2 hour warm-down jog. However, they preferred to do cross country skiing because the arms are involved and thus, it is more similar to paddling.

The circuit training consisted of the following exercises:

- |                 |   |
|-----------------|---|
| * sit-ups       | * bench press   |
| * bench rowing  | * squat thrusts   |
| * reverse curls | * hopping over a bench  |
| * pulleys       | * pull-ups lying on your back<br>and lifting up with stiff body |

The circuit was always done against the watch: 30 seconds for each exercise, then 30 seconds rest (as you move to the next station). The idea is to increase the number of repetitions you can do in each 30 seconds. The time would be increased sometimes to 35 or 40 seconds. In the spring, the time would be cut back down to 30 seconds. The circuit would be done 3 times with about 7 minutes' rest between them.

In February, the entire team went to a cross-country ski camp in the Salzburg area. This lasted 1 1/2 weeks. During that time, there was a race or time trial every second day over courses varying from 5 to 10 kilometers. Kurcz varied the courses to keep them interesting. They were usually about 10 kilometers, however.

The team also took a general physical fitness test during this time. They took it 3 times a year: in the fall, winter, and spring. It consisted of the following:

- \* 300 meter sprint (Fauster 45 seconds).
- \* 60 meter sprint (Fauster 8.3 seconds).
- \* A figure-8 slalom run (Fauster 22.3 seconds).
- \* Jumping straight in the air.
- \* Maximum push-ups.
- \* Pull-ups (Fauster 42).
- \* Bench press.

The results of the test were related to body weight before final scores were figured.

#### TRAINING CAMPS IN BOATS

In addition to the training camp for skiing, the Austrians also had 3 others in boats. The first one was in downriver boats exclusively. The second one was a mixture of downriver and slalom boats. The third was for slalom exclusively. The schedules for all 3 follow:

Castel Gandolfo, Italy  
Flatwater Training Camp in Downriver Boats  
Feb 1 - Feb 13

#### MONDAY

1. 7 am: Run 1/2 hour with easy stretching. The idea of the run is a warm-up for the hard workouts to follow after breakfast. In theory, the run oxygenates the system well, which thus prepares it for the harder work later.
2. 10 am: 25 kilometers of paddling including:
  - 5 X 2000 meters @ 80%, emphasizing long, smooth forward stroke.
3. 4 pm: 15 kilometers slow. This is supposed to be a sort of warm-down from the 10 o'clock workout. It is supposed to stretch out the muscles, and relax them. It is done at 70-80% intensity.

TUESDAY

1. 7 am: Run.

2. Power training with weights:

\* Bench rowing and bench press done the following way: WARM-

UPS

5 X 40% of maximum weight

3 X 70%

3 X 80%

MAIN SESSIONS

3 X 90%

2 X 95%

1 X 100%

\* Normal sit ups with weights.

\* Back ups with 5 kilos weight.

\* Bauchaufzug.

3. Afternoon run: 3 X 1200 (test).

WEDNESDAY

1. 7 am: Run.

2. 25 kilometers paddling, including:

\* Warm-up

\* 10 X 1000 @ 80%, with 1-3 min. rest (usually 1 minute).

\* Warm-down.

3. 4 pm: 15 kilometers slow.

THURSDAY

Rest whole day -- went to Rome.

FRIDAY

1. 7 am: Run.
2. 25 kilometers paddling, including:
  - Warm-up.
  - 3 X 3000 meters. Warm-down.
3. 4 pm: 15 kilometers slow.

SATURDAY

1. 7 am: Run.
2. 25 kilometers "Wechselrythmus":
  - \* Warm-up.
  - \* 2000 meters: start easy, accelerate gradually up to 90% intensity, gradually decelerate.
  - \* 3000 meters, same thing.
  - \* 2000 meters, same thing.
3. Power training: same as Tuesday.

SUNDAY

1. 7 am: Run.
2. 25 kilometers:
  - \* Warm-up.
  - \* 5 X 2000 meters.
  - \* Warm down.
3. 15 kilometers slow.

MONDAY

1. 7 am: Run.
2. Wechselrythmus.
3. Run: 3 X 1200.

TUESDAY

1. 7 am: Run.
2. 25 kilometers, including:
  - \* Warm-up.
  - \* 3 X 3000.
  - \* Warm-down.
3. 15 kilometers slow.

WEDNESDAY

Rest whole day.

THURSDAY

1. 7 am: Run.
2. 25 kilometers, including:
  - \* Warm-up.
  - \* 10 X 1000 meters.
  - \* Warm-down.
3. 15 kilometers slow.

FRIDAY

1. 7 am: Run.
2. 25 kilometers, including:
  - \* Warm-up.
  - \* 5 X 2000 meters.
  - \* Warm-down.
3. 15 kilometers slow.

SATURDAY

Went home.

INTENSIFICATION PHASE

During this phase of the yearly training, the emphasis shifted from endurance to speed. The following is an example of the training done at this time. It was done in a training camp in Dunavasny, Hungary.

Dunavasny Training Camp  
March 19-27

SATURDAY

1. 7 am: Run, stretch.
2. 2 pm: Test in a downriver boat on flatwater. Boats sent off one at a time.

BEST TIMES

2 X 100 meters	20.8 seconds
1 X 500	125.0 seconds
1 X 1000	272.0 seconds

3. 2 X 1000 meters @ 80%.

## SUNDAY

1. 7 am: Run.
2. 25 kilometers, including:
  - \* Warm-up.
  - \* 6 X 300 meters.
  - \* 4 X 500 meters.
  - \* Warm-down.
3. Slalom: Gates on dead flat water. Work on technique - no times. The reason the slalom paddling was done in the afternoon was because it was too cold in the morning.

## MONDAY

1. General physical fitness test (see above).
2. PM: Slalom technique.

## TUESDAY

1. 7 am: Run.
2. Wechselrhythmus (see above, but 300 and 400 meters now, instead of 2000 and 3000).

## WEDNESDAY

1. 7 am: Run.
2. 25 Kilometers total:
  - \* 6 X 500 meters
  - \* 2 X 1000 meters
3. PM: Slalom Technique
4. Soccer Game.

## THURSDAY

Rest all day.

FRIDAY

1. 7 am: Run.
2. 25 kilometers total: 3 X 2000 meters.
3. PM: 15 kilometers slow.

SATURDAY

1. 7 am: Run.
2. 25 kilometers total: 2 X 100 meters @ 100 %  
10 X 300 meters @ 90 %  
1 X 1000 meters @ 90 %
3. 1 1/2 hours slalom technique.
4. Power training (see above, but this time the bench press and bench rowing were done only up to 80 %, not 100 % of maximum weight).

SUNDAY

1. 7 am: Run.
2. 15 kilometers slow.
3. pm: Go home.

Lofer Slalom Training Camp  
End April - Early May (1 week)

Each day began with the 7 am run/stretch.

The slalom workouts consisted of the following:

- \* 5 X (5 X 15-25")
- \* 4 X full length course, then:
- \* Split runs: parts of the course were done for time. For example, the first 10 gates; then a rest before going to the next 10; another break before going to the last 10.

\* Two afternoons the whole workout was devoted to team runs.

The paddlers also had soccer games during the training camp.

Later in the spring, the Austrians moved to interval training in gates. Two typical workouts:

I.

- \* 6 X 60 sec. (start next interval when pulse gets down to 120)
- \* 3 min rest.
- \* 4 X 90 sec. (start at 120)
- \* 3 min rest.
- \* 3 X 120 sec. (start at 120)
- \* 3 min rest.
- \* 2 X 180 sec. (start at 120)

II.

- \* 3-4 X (1 X 15 sec.)  
(1 X 30 sec.)  
(1 X 45 sec.)  
(1 X 30 sec.)  
(1 X 15 sec.)

#### TRANSFORMATION PHASE

The Austrians didn't start structured slalom work until mid March. Almost all the boat work up to that time was done in the wildwater boat. In mid March, Claudia went to Klagenfurt with Fauster. Here they did lots of kilometers on a canal in the mornings and slalom work in the afternoon on still water (fish pole gates on a lake). It was warm enough to do slalom earlier but they chose not to do it. They felt it was good to get "hungry" for it.

From this point -- late March -- on, the training was as follows:

- \* Mornings: Run.
- \* Downriver boat 10 kilometers once a week, easy paddle.
- \* Slalom workouts:
  - a. Once a week: 30 gate whitewater courses; you must get two clean runs on 3 different courses (6 clean runs). You stay there until you do.

- b. Twice a week: Interval training in gates. Courses no longer than 22 seconds -- 12-13 seconds are ok. You must do a total of 6-8 minutes of hard work -- probably 5 runs on 4-5 courses.
- c. Day after a race: go over the mistakes you made in the race. Totally technical workout.
- d. Timed and scored work on full length courses, two courses, We e runs on each.
- e. Once a week: a good reflex game for fun and for the lungs, such as soccer or basketball. If not one of these, then a long run (90 minutes).



Austria's Edi Wolffhardt, three times Silver Medalist: 1977 in team; 1979, in individual and team. (James M. Thresher Photo)

## Jonquiere

The Austrian team arrived at Jonquiere with Sattler predicting publicly that Peter Fauster would win the race -- which he did. Sattler believed in him because he had always been so fast in practice, but this year as never before, he also had tremendous endurance.

After first runs, all of the top Austrians were clean with Edi Wolffhardt lying in second, Fauster in fourth, and Norbert in fifteenth.

On the second run, Fauster roared down the top half of the course "this is where he won the race" -- and picked up six seconds on Norbert by gate nine. Part of the reason was the special move he did going from gate 7 reverse to gate 8.

Coming from gate 6 to 7, Fauster did a reverse sweep on the right to put his stern in the reverse gate, a standard move. But then he did a small reverse sweep on the left, quickly converting it into a sliding pry on the bow of the boat. This stopped the boat's sideways momentum ("works very well when you're moving sideways and the poles are low"). Quickly thereafter, Fauster did a bow sweep on the same side to accelerate out of the turn and head for the next gate.



Peter Fauster won the Worlds on his fourth try. (Will Summers Photo)

On the bottom half of the course, however, Fauster was quite low on at least three upstreams, but he charged back up the eddies incredibly fast, hardly losing any time at all. "He often hit upstreams low on purpose," Norbert says "so he could glide up fast. He wasn't that good on really tight courses, but he was on wide open ones."

On his second run, Edi Wolffhardt was not as fast as Fauster on the top half, but he picked it all up on the second half and was, according to the Austrian splits, actually ahead going into gate 29. But he lost two seconds there and this cost him the race. He had to settle for the silver medal.

In between his first and second runs, Anton Kurcz told Norbert "Go like a hungry lion!" But Norbert found himself thinking, "Wait a minute. If I do that I might blow it and then I really would be a hungry lion for two years because I'll lose my Sportshilfe (government funding)." He was sure he could get into the top 6 -- necessary for Sportshilfe -- if he was more conservative. Later he regretted having chosen this strategy.

Norbert lost time from gate 6 to 7 because he turned bow to the river right shore, just the opposite of Fauster, and was low in 9 upstream as a result. "After that, I had a good run." He got fourth place.



Norbert Sattler at Jonquiere: "Go like a hungry lion."  
(James M. Thresher Photo)

## Team Race

The Austrians felt the team race would be between them and the British. Sattler, Fauster and Wolffhardt was the start order. But Norbert messed up gate 6 again and Fauster took over the lead. "Fauster was always right on my back in the team races," Norbert recalls. "He'd literally put his bow on my stern and shove me up through the upstream gates. Often that was good, but sometimes he got too close."

Nevertheless, when Norbert crossed the finish line and waited for Edi Wolffhardt to go through gate 30, he thought to himself, "Oh boy, we're all clean, and we'll win." But Edi hit gate 30 with his stern and the Austrians were bumped into second when the British had a clean second run.

1981

One has to be struck by the brilliant showing of the Austrian kayaks in 1979 -- 1st, 2nd, 4th -- and the mediocre showing -- highest place 9th -- at Bala. How did this happen? Was it because the Austrians' general conditioning worked well for the relatively easy Jonquiere course (22 clean runs in K1), but not at Bala where the premium was on technique?

Toni Kurcz thinks not. He points to the fact that the Austrians had very good results immediately before and after Bala. He regards the Bala performance as due to the following factors, in order of importance:

\* NO PETER FAUSTER: "Fauster risked everything," according to Kurcz. "He would have been 50th or 1st at Jonquiere. He was a real fighter and this picked up the whole team, especially Edi Wolffhardt. You need a structure of personalities, a leader, for a successful showing."

\* POOR LOGISTICS AT BALA: At Bala the Austrians spent three rainy weeks isolated from the other nations in small trailers. "No parties, no women."

\* SMALL, TECHNICAL BALA COURSE: The Austrians prefer big water courses.

Norbert Sattler believes that the team did too much training on whitewater just before leaving for Bala. They had a training camp on the wide, cold Drau, which was very unlike Bala. Norbert feels "the water in Bala is totally unlike anything in Austria." He feels that the Austrians should have trained flatwater gates in Austria to get

fit, and then gone to Bala to learn the water there.

Furthermore, the downriver and slalom teams stayed together at Bala, which was a bad idea, Norbert feels. There were too many problems of coordinating everybody's schedule. For example, on his first run, Norbert ripped his seam and couldn't get anyone to repair it for him, "because it wasn't in the schedule!"

Since 1981

Norbert Sattler continues to train similarly to the ways he has in years past. That is, he does a lot of downriver boat paddling on flatwater for conditioning and a good deal of power training with weights. He has to make sure that he doesn't get sick of paddling, so he takes a rather long break between the end of the competitive season and the beginning of preparation for a new one. "Break," however, means more of a break from paddling, rather than a break from exercising: he still does runs and other exercises during the slack period.

When he trains, he follows a rather simple formula: He trains very hard for about 4-5 days ("you kill yourself"), takes a day off completely, has an easy day following that and then trains hard again for 4-5 days. The purpose of working really hard during these 4-5 days, and then taking a complete rest day is to achieve an overcompensation (that is, the body builds back stronger than it was before the hard days). He determines what is hard training and when to take the rest day based purely on feel. Sometimes he needs more rest, sometimes less. Norbert does not work on perfecting his flatwater gate technique very much. I think this is because he fancies himself a big water paddler and really isn't as interested in flatwater training. As a result, his gate techniques are very straightforward, with few intricacies.

Looking back over his extremely long career, Norbert has the following words of advice:

When you're a kid, just starting out (12-13), it's best to do a lot of whitewater paddling. Paddling is so different from everyday body movements, that it takes many years to get accustomed to it. It's not like running which is not that different from everyday walking.

When you're starting, work on gate techniques and speed first and don't worry about endurance for a few years. Kids can learn technique easily and have great fun doing sprints. It's easy for them to learn, especially if they have someone good to copy. Little kids just copy, they don't think. Older people have to analyze things and that takes longer.

Another thing is important. Don't specialize too early. Kids who specialize too early come to a race situation that they've never been in and they can't improvise. They should paddle everything for a while first -- C1, C2, K1, flatwater.

It's impossible for kids to overtrain if they are just playing, learning technique and sprinting. So they can do a lot of that. They shouldn't do a lot of lactic stuff though, because that WILL overtrain them.

Later on, as you get older (15-16), it takes more than just paddling whitewater to get really good. You reach a certain point and you don't improve any more. To improve, you have to start doing endurance work and out-of-the-boat work. I probably should have started that earlier.

Downriver is good endurance training. In 1977, I was so fit I could have made our downriver team, if I had wanted to. In 1979, Fauster could have made our downriver team, too.

Finally, when you get even older (19-20), you have to train very intensively, but you have to make sure to get enough rest. A lot of people think they have to train all day long -- volume -- to get good. But intensity is the key. You have to mix the intensity and the volume in different proportions during the year. When you are training hard, you have to train very, very hard for a few days, then take a very light day. Years ago I never took a rest. I just paddled, paddled, paddled. But I should have rested more. I would have improved even faster.



Norbert Sattler (Renzo Mariani Photo)