

Slalom E-Book

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Section VI - Case Study : Three in a Row: The Tony Estanguet Story

At the Beijing Olympics, Tony Estanguet has a chance to do what no slalom athlete has ever done: win his third Olympic gold medal in a row. But get this : no other French athlete in ANY sport has ever done it before. So, we're talking about some pretty high stakes here.

Since Tony Estanguet is already a two-time Olympic Champion, as well as a World Champion and a World Cup Champion, a lot of people feel he is the best C1 ever.

So Tony Estanguet is an important figure to study and one inevitably asks "How did he do it?" Well, I think as we delve into the details of his story, it's important to realize that besides his natural skills as an athlete, Tony profited from a number of things that were going on in French canoeing when he came into the sport, the most important of which was the influence of his father and brother. But there were other things, too, and I think a good summary of it all is this passage by Yves Narduzzi, who was on the French C1 team with both Patrice and Tony and who is now Tony's coach:

I saw Tony's evolution from the moment he started racing to when I stopped. He had an almost meteoric one, you could say. But for me, it was kind of predictable, considering the enthusiasm he had and the relationship he had with his father and his brother and the circumstances within the sport at the time. It all came together very quickly for him, but in a very natural way.

I think about all the research the French C1s had done that Tony was able to profit from, whether it be Herve Delamarre, Emmanuel Brugvin, or Patrice or even me. I think Tony arrived just when that had been done and there was already a really good dynamic going on within in the French team, in which the team was already having really good results, and cooperating with each other, and things were going really well.

I also think the team coach, Pierre Salamé, knew how to handle Tony really well. He did it in a very honest way. That is, he was very good about not divulging little secrets that each individual athlete told him in confidence, like saying, "look at that other C1 on the team, he's doing this, or developing that secret technique, and you should do it, too" or something like that.

He kept to himself what each athlete told him in confidence. But on the other hand, he knew that certain things were necessary for the group as a whole. So I think Pierre Salame's skill was in getting enough information out of each person so it was possible for everyone to progress while still maintaining a certain amount of confidentiality.

I think Tony arrived at just the right moment when all this had been set up and there was a very good group cohesion.

Once in a while it so happens that a great performer like Tony Estanguet is the culmination of three teacher-student relationships, a sort of Socrates, Plato, and Aristotle succession. So it has been for Tony Estanguet -- except the 3 steps have all been within his own family.

First there was his father, Henri Estanguet, who was on the French Wildwater Racing team. And then there was his brother, Patrice, who won World and Olympic medals of his own. In fact, in both 2000 and 2004, in order to make the French Olympic team and thereby win his two Olympic golds, Tony had to first beat out his own brother at the team selection trials.

So, it seems to me the best way to tell Tony's story is start with Henri, at least in passing, and then go to Patrice. Consequently, this study is broken into 2 parts, the first dealing with Patrice and the second with Tony, and both of them speaking of the influence of Henri Estanguet.

Not surprisingly, along the way to where Tony is now, the Estanguets and the French in general have helped to change C1 profoundly. Perhaps the greatest tribute to that is the fact that in recent years, the world's best kayaks -- also French, by the way (see Lefevere and Peschier case studies in another part of this E-book) -- have copied the C1s, thereby revolutionizing how kayaks do upstream gates, for example.

As just one sample of how the French have helped to change C1, I include as an appendix to this chapter, an article on the forward stroke by Emmanuel ("Manou") Brugvin, himself a French C1 World Champion in 1999. (The article was translated into English by Jamie McEwan, 1972 C1 Olympic bronze medalist).

Brugvin bills his piece as "an analysis of the elite international C-1 paddlers of the early 2000's" and not just analysis of his own technique. While the piece deals only with the forward stroke, one big overall change from the 1980s and 1990s is evident: basically, don't rock the boat.

While Jon Lugbill could talk about "throwing his body around," in the 1980s and early 1990s, by the early 2000s you didn't want to do that any more. Another thing is "going vertical" with the stroke, something that was not done as much in the past. (Although Brugvin doesn't go into it, one main reason for wanting to paddle vertically today is to keep the boat going straight; the newer boats turn more easily than the older boats, so if you paddle more horizontally, it's easier to inadvertently knock the new boats off course.)

A few large developments in the sport have helped to speed change, too. During the 1990s whitewater Slalom Racing shifted from being primarily contested on natural river courses to being contested on artificial ones. Furthermore, during that period, the courses became a lot shorter, maybe only half as long, time-wise, as in the 1980s.

On a natural river, there tends to be more relatively flat sections, where you could pick up a lot of time simply by picking up the stroke rate and really paddling hard. But on artificial courses, the whitewater tends to be more continuous and you want to focus on boat positioning and steering more, letting the water carry you more and putting more of a premium on keeping the boat moving smoothly.

But top C1s like Tony Estanguet and Michal Martikan are still able to get away with a substantial amount of body movement because they time their movements with the waves. In fact, they use their body weight to counteract wave action, resulting in a smoother boat than if they simply stayed upright all the time. When the waves don't necessitate this counterbalancing movement, though, they are very good at keeping the boat from bobbing or rocking.

Another thing not mentioned in the Brugvin piece is the improvement in boats that has occurred over the last decade, generally speaking, making the sterns smaller so there is less resistance

on turns and thus the boats turn easier, and making the boats narrower in the bow so it's easier to paddle vertically. The Estanguet's, as we'll see, had a lot to do with these improvements.

Part I -- Patrice Estanguet

"To be a top C1, you have to be pretty inventive."
-- Patrice Estanguet

Patrice Estanguet was born in 1973 in Pau, France, where he still lives, and when he raced, he was 1.82 meters tall and weighed 73 kilos. His paddle length was 149 centimeters.

He is the middle of two brothers, Aldric a year older, and Tony, 5 years younger.

Their father, Henri Estanguet, who also lived in Pau until he died in 2005, was on the French Wildwater Racing team in K1 and finished an excellent 9th in the individual competition of the 1977 World Championships in Spittal, Austria. He also got a bronze medal in the team race. Their mother, however, was not involved in sports at all.

Patrice first got into whitewater in 1978, when he was 5 years old. And like most people in France at that time, he started in kayak, not C1. "Here in the Pau region," he explains, "everybody did kayak and no one did canoe."

" I started in kayak because there weren't any C1s. I even tried kneeling in a kayak. I did kayak until about age 11-12. Then, because the river in Pau (the Gave de Pau, it's called) was too easy in kayak, I preferred to do C1 because it was a little more difficult and unstable. In order to continue to have fun, I tried C1 so I could have more of a sense of balance and imbalance".

But he didn't go directly to Slalom Racing C1, doing to Wildwater Racing C1 for a while first. Since both Patrice's father and his older brother, Aldric, did only Wildwater Racing, it was natural for Patrice to begin his paddling career in Wildwater Racing. Once Patrice switched to Slalom Racing, however, it was natural for Tony to follow Patrice directly into Slalom Racing.

Canoeing and kayaking weren't Patrice's only sports; he started cross-country skiing about the same time as kayaking. And he actually started racing in cross-country skiing before he started racing in kayaks, being in the French championships at age 13.

In fact, he did a little bit of all sports having to do with gliding, that is, skiing, surfing, even a bit of parasailing. On the snow, on water, in the air, anything that had to do with gliding.

Not surprisingly, Patrice's father was influential in the beginning of Patrice's career, showing him the basics about whitewater:

"He gave us the inspiration to do what he did. He was a wildwater paddler. So we were motivated to discover rivers and run as many rivers as possible and run harder and harder rapids. The challenge at the beginning was not to be better than other people but to be able to run the river with control and then be able to stop in a really hard eddy. So, he was the one who taught Tony and me to be at home on the water."

1987

In 1987, at age 15, Patrice was French National Champion in the cadet class and the next year, he started really serious training. He began by studying the American C1s, particularly Jon Lugbill and David Hearn. Lugbill eventually won 5 individual World Championship titles and 7 team ones, making his total of 12 golds to this day the highest in the history of the sport. Hearn won 2 individual World Championships, was second to Lugbill 5 times, and together with Lugbill, was World Team Champion 4 times.

Here's the way Patrice puts it:

“ I got a lot of information about them. For example, I learned what “5 on 5” was (5 runs on 5 different 10-30 second courses) and I did that. The idea was to do technical workouts from time to time and try to think about how to improve. Most of the time, I was all alone and got outside help only once or twice a month during training camps. I trained about 4 or 5 times per week. Sometimes it was my father coaching me, other times it was the French team coach, Pierre Salame. But I didn't see Pierre often, one twice a month.”

1987 was also the first time Patrice saw a really big race, the World Championships at Bourg St. Maurice in France, at which Lugbill got first, Hearn second and another American, Bruce Lessels, third. (Then the 3 of them won the team race.)

“ It was an event that gave me the desire to spend a lot of time on canoeing and to try to reproduce what I had seen during the competitions and what I saw on TV. Since I trained by myself a lot, they had a very strong influence on the what I wanted to do and how I wanted to do it. I probably watched Jon Lugbill's 1987 run at least 300 times. And for a while I tried to do the same thing. “

By 1989, Patrice was training more and more with the French federation and the French team and had his best results at the Senior level. In other words, he was about 16 years old when he first started winning races in France at the Senior level, most notably winning the French Championships in Saint Aignan, in the center of France.

But for a number of years he had trouble actually making the French national senior team and his first international race came a long time later, in 1993.
Why so late?

“ For many years, I had a lot of trouble getting past the French team selection trials. I just wasn't able to perform as well as I should have. “

It wasn't that his level of ability was too low, it was just that he wasn't racing up to his level of ability. Perhaps it is worth noting that during this entire time, 5 years in all, he was training by himself most of the time. Tony was too young at that time train with him.

In 1992, Patrice started working with a sports psychology coach, Mark Bouvard and the relationship was to go on for 4-5 years.

In 1993, Patrice finally made the French team for the World Cup and he won the first one, at Seu d'Urgell, his first international race. But he wasn't on the team for the World

Championships; it was not until 2 years later in 1995, at age 22, that he first made the Worlds team.

Patrice describes his training at the time this way:

“ On the technical level, I was trying to work on reducing the number of paddle strokes. Because I am a Professor of Sport, I did a lot of research for school and I found that in swimming, they did a very important study on stroke rate. They found it was better to lower the stroke rate and instead make each stroke stronger. So, I worked on trying to take fewer strokes but more powerful ones. I think something that influenced me in this regard was watching Gareth Marriott, the British C1 Olympic medalist, who said he was also working on this. His principle was the same: try to use fewer strokes and you'll find you actually go faster in the race. “

In other words, was he now moving away from Lugbill's technique of a high stroke rate?

“ I think in training, you have to try to improve the quality of your strokes. But then, in races, you'd see people like Jon Lugbill who was very interesting because he was able to have enormous power while still having a very high stroke rate. I'm not sure that today, if we raced the same exact courses that Jon raced, people would go any faster than he did, because it's true, he was very, very fast. Today, on a 200 second course, I think athletes would have tough time doing much better than he did. Except for the fact that boats are better today, it would be difficult to do much better. It's hard to say.”

Designing Boats

One of the areas in which Patrice influenced French C1 was boat design, the first really good boat coming in 1993. But it was a long process, going through 3-4 evolutions, starting first with very radical, small, fast boats that didn't turn very well and finally ending up with a bigger boats that did.

To design and build these boats, Patrice worked with Stephane Mourebard, a Swiss who did not know anything about the world of canoeing and kayaking. He lived in Geneva and had some experience with wind surfers:

“ In the beginning, I used American boats before making new designs. I noticed that in the 1980s the volume of the boats was getting less and less. And I think in 1987, it was the smallest boat. Then in 1989 at the Savage World Championships, the boat started to get a little bigger again to make it perform better in waves. So, in general and certainly before 1989, the smaller the boat and the more difficult it was to paddle, the faster it went. Then I started communicating with Stephane about some ideas he had that weren't very concrete.

The first boat we made was very, very narrow and very, very fast, but I couldn't put together two good races runs with it. It was impossible; it didn't turn and it was very unstable. It was too fast in a straight line. Later, I saw it was too difficult a boat to paddle and I went in the other direction. I wanted a boat that was the easiest to paddle and I essentially worked on the bow so that it would always be on top of the water without my needing to do steering strokes in back.

And then we came up with a new boat with a big bow, the "Grouen" that rode on top of the water and was easy to paddle and I had better races with it. We continued to evolve the boat along these lines but by 1993 it had become a little radical, in that it was too big and sometime the bow would pop up and cause me to hit gates. So, in the years after that I cut it down, but still kept a bow that was big enough. "

While Patrice participated in the design of the boats, it was Stephane Mourebard who actually did most of the physical work of making them, sparing Patrice the effort. "In the beginning, it was one boat that we made out of foam, like a surf board. Then, a bit later, we made a mold and sold it to boat manufacturers."

After one more modification in 1994, Patrice kept the same boat all the way through the 1996 Olympics.

How he did in school

Patrice says when he younger, he wasn't a very good student because "I was so caught up in canoeing that I didn't do my studies." But he did well enough to get accepted, after high school, in the course for becoming a Professor of Sport in France, which he is now. The course lasted 5 years, from 1990-1995. (He also had to pass a fairly rigorous national exam to earn the license to teach physical education in French schools.)

And in studying to become a Professor of Sport, Patrice says "I learned a lot because I found that studying other sports enabled me to gain a valuable perspective on canoeing, particularly what I learned from rowing, swimming, and even car racing."

Costa Rica

Starting with the winter of 1994-5, Patrice began going to Costa Rica for winter training, staying one month for the winters of 1994-5 and 1995-6.

First Worlds in 1995

Patrice first competed in the World Championships in 1995, in Nottingham, the year that one of the Americans, this time David Hearn, again won.

" It was the first time I was selected for the World Championships. I won the trials and what was surprising was that I trained a lot less that year because of my studies. I told myself that maybe this year I wouldn't be able to go to the World Championships because I was studying so hard. So, I had less psychological stress and I had a good result at the trials. Then, I was 4th in the 1995 overall World Cup. But at the Worlds, it didn't go well because I had penalties. I had a very fast time but the penalties pushed me down into 15th, I think it was. "

As in the past, Patrice spent most of training time alone, seeing the other boats and coaches on the French national team only at training camps.

Ocoee Olympics

1996 was an Olympic year, and the Olympic course was on the Ocoee river in Tennessee. After an uncertain start, the year turned out to be an outstanding one for Patrice because he won a bronze medal on the Ocoee.

“ At first, I was not selected for the Olympic team because I was the 3rd boat and 2 boats qualified ahead of me, with the possibility of a 3rd maybe getting to go later. So right after the trials, I didn't train with the French Olympic team. I found out about my selection only 15 days before the Olympics. “

But even though he wasn't training with the French Olympic team, he did get to train with another French team. With that team “I did 2 World Cup races and I was hoping to hear that there would be a place for me at the Olympics.” He won one of the World Cup races, the one at Seu, and had good results at the other one, too. And then only 15 days before the Olympics he found out he was on the team. What did he think?

“ In order for me to go, some country had to decide not to use a slot it had qualified for. A little country -- Macedonia, I think -- decided not to send its C1 and so there was a slot for me. But I found that out only 15 days before the Games. It was a little difficult not having gone through the same preparation for the Games that the others did.”

But since he had done 2 training camps on the Ocoee course in 1995, each one of them about a week long, he was reasonably well prepared.

“ I liked the river because it was rather difficult whitewater. On the other hand, what was hard for me was the fact the course was very long and that wasn't good for me because I was better on short courses and particularly on artificial courses of less than 2 minutes, like Seu, for example.

The Olympic course was a little more than 2:30 and therefore rather long. That's not to say I couldn't be good on that kind of course because the 1995 Worlds course was about the same length and I had the best running time, although I also had penalties. So I knew that I could have a good race.”

Race Day 1996

“ The memory I have is that there was a lot of tension and stress on the day of the race. I found the coaches very tense. Emmanuel Brugvin and Hervé Delamarre were the other two French athletes. So there was a lot of tension like you always have at the Olympics. But I felt it was really a little different, as if the future of the whole French Federation was at stake, not just what I had at stake of just wanting to paddle the best I possibly could. “

So how did Patrice handle it?

“ I did some psychological work with Mark Bouvard to try to manage the situation and to be as calm as possible. Starting with the team trials, we worked together so I could be calm. He helped me psychologically to know why I was doing races, and to try to put

them in the proper perspective, and to rediscover the pleasure of boating and having a good experience. “

And here is Patrice's account of the race itself:

“ My counting run was the first one and I had a good run, taking into account what was at stake. I think I succeeded in doing more or less what I was capable of. I made one mistake on the last part of the course, the most difficult part. I lost about a second there. But I still think it was a good run because on a 2:30 course, one second was not as important as on a 1:30 course. So, at the finish line I was truly satisfied and very happy with my performance.”

After the first run he was in 2nd, behind Lucas Pollert.

“ The second run was hard because it was the first time I had been in that situation of having a good first run but then not really knowing what to do on the 2nd run. Normally, I always had a better 2nd run and was rather mediocre on my 1st run. So, I was a bit disoriented. And it didn't help that I hit the 3rd gate on the course and knew the run was almost over for me. So I really didn't have a very good 2nd run.”

Slovakia's Michal Martikan, who had finished only second at the Junior World Championships only a short time before, was the surprise of the race, having a very good 2nd run that won the Olympics, leaving Patrice with the bronze medal.

Patrice summarizes his feelings about the situation this way:

“ After first runs when I was in 2nd, I was happy with my result and thought it could hold up. Later, though, I was disappointed because I could have profited from an even better second run, but I just didn't have the experience to do it.”

But even better results were in store for Patrice after the Olympics in that he placed second in the World Cup in September in Brazil, thus gaining the overall World Cup title that year.

Key changes in 1997

The following year, 1997, saw a rules change in Slalom Racing, mandating that the two runs be added together for the final score rather counting only the best of the 2 runs. “That was new because now you had to be on top of things all the way down the course on each run.”

Another interesting thing that happened that year was that Patrice's brother, Tony, was finally old enough to train with him, and they trained together twice a week. Both of them were ultimately make the French team that year and compete in the World Championships together for the first time, in Brazil.

In describing his training at that time, Patrice talks about modifying the old upstream gate technique of going a little wide and sneaking underneath the shore-side pole on the way into the gate.

“ It was a time when I worked a lot on upstream gates and when I discovered that if I turned a little before the gate, I was quicker. I discovered that if I was willing to lose a

little time in the beginning I could more than make it up afterwards. The ability to turn before the gate helped to make a faster exit.”

This is reminiscent of something the British kayaks used to say years ago, “pause and pounce”: enter upstreams a bit slowly so that you can set up a fast negotiation and exit from the gate. But Patrice says he was not influenced by anything he saw kayaks doing:

“ For me, I found that in C1 in the entry to the upstreams, you had to go in gently. But I think the kayaks preferred to go fast all the time.”

In order to facilitate this new upstream gate technique, Patrice also modified his boat a little bit:

“ What I wanted was something that turned a lot better. Making the stern thinner and narrower did that. “

As a result of the boat changes, Patrice found that his new upstream gate technique was fastest on most kinds of upstream gates (but not all).

Winter Training in South Africa

In the winter of 1996-97, instead of going to Costa Rica, Patrice and Tony flew with the French team to Johannesburg, South Africa, and trained at a place near there for a month: “It was interesting and a little wild. It was very good because it allowed me to experience something a little new with training and that was motivating.”

1997 Worlds

In the World Cup that year, Patrice was 1st or 2nd at each of the races, thus winning the overall World Cup title once again.

But he wasn't so fortunate in the Brazil World Championships that year, finishing 9th, in a race won by Slovakia's Michal Martikan. Tony got 13th.

“ I was the favorite because I had dominated the World Cup. I didn't really know how to handle my position of being the favorite, knowing that Martikan was also a favorite and he was really, really good and had shown that he was capable of winning, too.”

However, he was Vice World Champion in team (to the Slovaks). Patrice was first, Yves Narduzzi second, and Tony third, based on their finish at the team selection trials earlier that year.

1998

In 1998, there were no World Championships, only the World Cup, and Patrice finished second in the overall.

“ I don't remember much about that year. I knew that I was expected to do well in the next Olympic Games because I did well in the World Cup and especially since I had always been on the podium at Seu (where the 1999 World Championships were going to be). And I was expected to finish either first or second and at the World Championships in 1999. So in 1998, I felt that people were just getting ready for the next year. “

1999

In 1999, Patrice was very focused on the World Championships and didn't try to win the World Cup, fearing that doing so would make him less strong at the World Championships, the way it happened in 1997. He also felt pressure to do well at the Worlds because he had done well at Seu before, where he felt really good. And finally, there was even more pressure because this would be the first time that the World Championships would serve as a qualifying race for the Olympics.

“ I remember we trained a lot for Seu. There were quotas for the Olympics that you had to meet at Seu. We were trying to qualify two slots at Seu. So the French team worked hard that year.”

Winter training in Australia

The winter of 1998-99 was the first time Patrice went to Australia with the French team.

Influence of Pierre Salame

Pierre Salame was for many years a C1 coach for the French national team and he had a great influence on Patrice, as Patrice explains:

“ We had lived through a lot of races together. We had gone to the Olympics together in 1996. He knew me well. He was somebody I had confidence in. Then, we did this whole period of 1997-1998-1999 together. But I did have some difficulties with him because he was also the coach of my French competitors like Yves Narduzzi who was also on the French team. So, I didn't understand how my coach could also be the coach of the other French racers, particularly at the team trials.”

So, we had some discussions to be very, very clear about relations, for him to have the same relations with everyone. In other words, if I spoke with him about technical details, he couldn't then talk about that with the others. We had a lot of discussions about this.”

Seu Worlds

At the Seu Worlds, Patrice came in 6th:

“ I was there to win because I knew that my technique was good for the course and that if I had a good race, I could win. Even if the others had good runs, too, I thought I could be faster.”

But he had a penalty on his first run, which kept him out of the medals. It was another Frenchman, Manou Brugvin, won the race and was World Champion.

In the World Cup that year, Patrice got third in the overall.

Sydney Olympics

The most amazing thing about 2000 was that it pitted brother against brother at the French Olympic trials:

“ The important thing was the team trials. France had 2 slots for the Olympics, but Brugvin was World Champion, so he was already pre-selected, which meant there was really only one slot left.

So there was a real competition between all the French and particularly between Tony and me. The first objective for me was to make it past the trials, because I was expected to do well in Sydney since I had won the bronze in Atlanta.

So, for the press, I was supposed to be in Sydney to do even better. But the problem was the trials. But I had decided this time to try to be in control and to have fun with the trials.

The thing about these trials was that it was tight between Tony and me. Tony won the first race, I won the second. Then Tony won the third but it was extremely tight, less than one second.

In all the memories of my race career, this was one of the most important because I had succeeded in having really good races even if I had not succeeded in getting selected for the Olympics because Tony was so strong.”

And then, after the Trials, Tony won the Olympics on the Australian Olympic course at Penrith.

Patrice, understandably, was crushed at not making the Olympic team and “After the trials, I stopped training for about 6 months. I stopped boating altogether. I started again later.”

2001 Worlds Canceled on the Ocoee

Eventually Patrice started training again, this time for the World Championships in Tennessee, USA. The race was to be on the same course used for the 1996 Olympics, where Patrice had won the Olympic bronze.

To prepare for this year, Patrice spent some time in Australia again during the winter. He picks up the story:

“ In the World Cup it was a bit difficult because I had had a big break in training. For 6 months in 2000 I didn't paddle at all. I came back bit by bit. I had a really good race at Bourg St. Maurice. It was the pre-World Championships. I won pretty easily. I had really started to reach a high level again just before the Ocoee.”

The World Cup final was at Wausau in the USA just 10 days before the World Championships, and Patrice raced there, placing 8th in the overall World Cup.

But after that, there were the 9/11 terrorist attacks on New York and Washington, DC. and the Ocoee World Championships were canceled because the organizers couldn't guarantee the athletes' security.

First Year of Worlds Every Year

Although the cancellation of the 2001 Worlds was a big blow to athletes around the world, the next year was also a World Championship year because 2002 was the first year the Worlds was changed from a biennial event to an annual one.

Furthermore, the 2002 Worlds were in Patrice's home country, at Bourg St. Maurice.

To get ready for this, Patrice did winter training in Australia again.

“ I remember that I really prepared for the Worlds that year. I had as a goal with my coach to try to get a gold medal at either the 2002 Worlds, 2003 Worlds, or the 2004 Olympics. So I really trained hard.”

Changes Boat and Paddle

Patrice also changed boats in 2001:

“ I changed the bow of the boat. I made a boat that was very narrow in the front in 2001. I did that because with the paddle stroke, I wanted to try to have a boat that was more down in the water and therefore would track better and be faster. I found it was good, but it in terms of speed it really didn't change anything. The speed may not have been a lot better, but it felt better.

Furthermore, he changed his paddle again, moving from a less extreme bent paddle shaft. Patrice had experienced breakage problems with the more severely angled shaft. Then he moved to a less radical one, with the blade only slightly angled forward and close observers felt the new paddle gave more ability to push down on the water at the start of the stroke.

Here are Patrice's thoughts about the Bourg Worlds:

“ What was really good was the course. For me, it's one of the best slalom courses in terms of difficulty. It was also a little dangerous, which I liked a lot. And I had a certain enthusiasm because I felt good. It was also a less tense situation for me, for a couple of reasons. First, I knew the next year there would be another Worlds. And second I felt less tense because Tony was the favorite, being that he was the Olympic champion. “

And his description of the race itself, in which, once again, Patrice had to beat out his own brother to do well:

“ What I remember is having a very good first run. I had a really good time and was first after first runs. Martikan was not far behind. I knew that he was strong on this kind of course. So on the 2nd run, I felt a little nervous because Tony and all the other French were out of it. I was the only one to paddle well and make the final. I was a little scared of making a big mistake on the second run. So I was a little cautious, paddled a little slower and so I lost a lot of time. With the result that I lost first place and even second since I had a penalty. So, I found myself in third.”

Augsburg Worlds 2003

The World Championships in Augsburg was another Olympic qualifier, so it took on even more importance than usual:

“ Augsburg was a course I didn't feel very good on. I had problems. I didn't often have good results there. Once I was 2nd in a World Cup race there, but usually I wasn't very good at Augsburg. All year long I had to learn how to adapt to the changes in the movement of the water there because the water and the eddies change a lot at Augsburg. I had to learn how to paddle in these conditions. “

To do this, Patrice participated in 5 training camps at Augsburg with the French team. He also went to Australia for winter training yet again.

Here is how he describes the process of getting used to Augsburg:

“ The river in Augsburg is very narrow and has vertical walls, so with a 4-meter long boat, you had to turn before the upstream gates (so you wouldn't hit your stern on the wall). So you had to work on that. You really had to exaggerate and build on that.

Sometimes you actually had to back into eddies, in reverse, to be able to go upstream again and that was counterintuitive. It wasn't very natural and not the way I wanted to do it. So I had to force myself to learn the new techniques. Particularly on the cross-draw, it was a bit unusual. You had to learn how to slow the boat down on the cross-draw and there were other unusual things you had to learn to do with your paddle at Augsburg. Just before the World Championships I started to feel good on the course. I had the feeling that the Worlds might go pretty well.

But they didn't; he didn't even make the final:

“ The qualifications went well. I won easily without pushing very hard and I felt good. But in the semis, there was a penalty again on one of the first gates. A bit of a repeat of what had happened before. I got 12th, I think, so I didn't qualify for the final.”

And he didn't feel good about it, either: “Here we were, the French trying to win the Worlds, but we didn't do it. It was Martikan.”

2004 Olympics

2004 was another Olympic year, again pitting Patrice against his brother Tony.

This time Patrice did not go to Australia for winter training, though:

“ The team trials were in March, so very early. They were in Seu. So we trained there all winter. There was only one place on the Olympic team. It was unusual. If Tony won the trials, he would be selected but if someone else won, then there had to be another trials at Athens. Tony won the first race and won the trials. It was very close, by only a few one hundredths of a second. I don't have any particular memory of it.

After that we left for the World Cup at Athens (which was also the last qualifier for Olympics slots) to try to win a second slot for the French team. Something unusual

happened there. The favorites were the Germans because they qualified well at the Augsburg Worlds and therefore had a better chance of picking up a second slot than we did.

Then, there were the Poles and the Slovaks who also had a good chance and only after them were the French. There were only two countries who already had 2 slots.

We had a chance, but we weren't in a great position. When all the second boats from the different countries had run, that is, after I had run, after the second German had run, after the second Slovak had run, we all had penalties and that meant that other boats qualified and one of them was the 3rd French boat, Nicolas Peschier, Benoit's brother.

That was my last race.”

So, once again, Patrice had been denied a spot on the Olympic team by his younger brother (albeit he did have a second chance at the Athens qualifier, which didn't work out).

Advice to Future Generations

Looking back over his career, what advice would Patrice give to someone starting serious training, wanting to be really good in C1? What are there things that stick out from his experience that he would particularly point to?

“ I think to be a top C1 you have to be pretty inventive. You have to have the desire to invent things because it's a pretty complex activity, because it's hard to be consistent on 2 runs and do really well 2 times in a row. I find to do that you to have an analytical mind and to be inventive in building towards top performance. There are a whole lot of parameters that have to be managed. And I find that those athletes who are good, like Tony or Fabien Lefèvre, for example, are people who think a lot about their training and how to do 2 runs that are added together, about technique and trying to find a difference between them and their competitors. I think it's necessary to have this kind of spirit to be good. “

Does he think it would have made a difference if he had spent more time training with other people towards the beginning of his career? Would that have helped?

“Yes. I think It would have helped because it's true there was a time in the beginning when I liked to paddle just because it felt good, but I wasn't happy because I didn't have contact with other people and I was all alone.

Particularly when you're young, between 15 and 20, I think you need to be in a group and interact to feel good. And I didn't feel very good. I felt good in my disciplined approach, but I could have used a group, with a coach and other paddlers. “

What about having a coach before he made it to the senior team?

“ I think it's good to have a coach, but he's really more of an advisor. You still need to retain a certain amount of autonomy yourself, though. The goal of trying to win a race has to be personal. I don't think it should be the goal of just the coach. He has to have his own goal and you have to have yours.

But I think this is something you're born with. You have to have the desire to organize things around you. Because if you just let other people organize everything, then it's difficult for you to be strong on race day. “

Part II -- Tony Estanguet

“For me, the competition is just a way of knowing myself better.”

-- Tony Estanguet

Tony Estanguet was born May 6, 1978 in Pau, France, where he still lives. He is 1.85 meters (6' 1"), and weighed 74 kilos (163 pounds) at the Athens Olympics. His paddle length is 150 centimeters. He started canoeing at the age of 4 or 5.

All the information in this study all comes from interviews and no written records because Tony never kept a training log:

“It's true, I've never kept a training log. I've always been in the habit of adapting myself to the conditions of the moment and reflecting ahead on what has to be done with my coaches and trying to be as dedicated as possible. Today I know more or less what I'm doing because I use the calendar of workouts the coaches have set up. They have notes about each session in their notebooks about what I did. But I never felt the need to go back over previous years to see what I did at such and such period because I think each year has to be prepared differently. Each time I need start out from zero and to tell myself at that time what I need to do.

But my coaches keep all the records. They transcribe them onto a DVD at the end of each year, not only the key moments of the season and the competitions but also the records on weightlifting so you can evaluate it. Also, any tests in the boat. But I never keep anything like this because at least up to now, it's never been useful to me.”

As we have seen in the Patrice Estanguet story, Tony started paddling with his brothers, Aldric and Patrice, following in the footsteps of his father Henri, who was on the French Wildwater Racing team in K1.

Not surprisingly, Henri had quite an influence on Tony:

“When I was very small, I looked at him boating, him and my brothers. Because my brothers started at the age of 3-4 years with him -- very young. I inevitably wanted to try it. I asked him unceasingly. So one day they put me in a kayak. Recently someone found an old photo in which I my head barely rises above the cockpit. So I started very young. I started paddling a kayak by myself around 5 years old.”

Unlike his father and brothers, however, Tony's mother was not active in sports:

“ She wasn't into sports at all. She never did canoeing because she doesn't like the water very much. So, much to my regret, she's never been in a canoe. But that's not all bad because she gave a sense of balance to our family. She was there from time to time

to say "Stop! Let's talk about something other than canoeing!" That allowed us to have a balanced education."

Like Patrice, Tony did not start in C1, but in K1 -- "I did kayak until I was about 13-14 years old and then I got into C1." His older brother, Aldric, stopped racing in order to finish his studies, so his best result was in Juniors when he was on the French team in kayak. He never switched from kayak to C1, though, so only Patrice and Tony did C1 in the Estanguet family.

Tony explains his earliest training like this:

" I remember my first really important workouts in canoe. When I did kayak, it was pretty much playing until age 13, three times per week, so already quite a lot: Wednesday, Saturday and Sunday, plus the holidays. I benefited from the fact that my brothers, who were bigger, were already training for races. Therefore, I watched them and I practiced with them. Even if it was playing, I was in the water very often."

And, of course, his father was his first coach: "My father coached me until I was about 15, until I got into the French Junior team."

What's Tony's version of how both he and Patrice switched from kayak to C1?

" It was Patrice who came up with the idea of getting into C1 because I was too little then. I think he was influenced by the Americans who were the stars of that time. There were the World Championships in France at Bourg St. Maurice in 1987. There was an important phenomenon going on in canoe thanks to the Americans who were impressing everyone and people were always asking how they could be so fast. So there was that part of the dream. I remember Patrice was forever looking at videos of Jon Lugbill.

Patrice just had the desire, I think. It was a curiosity and all of a sudden he liked it. He found he was suited to it. He just found paddling a C1 more fun, more exciting, particularly thanks to the Americans and Gareth Marriott who were his role models. I was in the middle of all that. At age 13, I knew that there were these two possible types of boat to try. Just like Patrice, I was quickly allured by this boat which was more technical and which I had more fun with because I had the sense of using the movements of the water more and having more sensations."

What did their father think of the two sons "abandoning" the kayak class and going to the C1 class?

" There was no concern about that. On the contrary, my father even helped us and was one of the first to say: "Yes, you should do canoe." It's true that at the time, the kayak was the most prestigious boat and when we turned to the canoe, people wondered why and thought it was a shame to give up the kayak. But he said: "If you like C1, go ahead, there are perhaps things to invent there." And gradually, C1s started being able to do the same things kayaks did. It's fun to help a boat class to advance like this."

But Henri cut back on his coaching when Patrice and Tony got on the French Junior team; he let the French Federation and the national team coaches take over. He was always there, though, when the boys needed him to hold a camera or to give advice. "But he was no longer trainer number 1 of the Estanguets."

Importance of Wildwater for Slalomists

Up until 1994, Tony did both Slalom Racing and Wildwater Racing:

“ In France, you have to do both as a Cadet. To go to the French Championships, you have to be selected in the two disciplines. So you have to do 50% Slalom Racing and 50% Wildwater Racing. So, I did Wildwater Racing up to 1994. After that when you become a Junior, you don't have to do both any more, so I stopped.

Doing Wildwater Racing helped me by giving me a good feel for the water. My father was a wildwater paddler and he insisted that I do it because it makes you more at home in whitewater. Personally, I never really liked it all that much, though, because it was less fun and more physical work.

But I think it's important to do both and that's what I say today to the young people at the club -- even if it is not always a lot of fun. Today, all good slalom paddlers can also be good in Wildwater Racing and I think it's easier to develop one discipline with the two together than with just one alone. It's possible to do it with only one discipline but it's more difficult than with both.”

Getting on the Team Early

Tony got into the French Junior team remarkably soon after he switched to C1:

“ I really profited from all the advice from my father, my brother, from the videos, and so on, with the result that I got on the French Junior team when I was just a Cadet. I was rather young compared to the others. The same thing happened later when I made the Senior team when I was a Junior. So, I was always two years ahead of my age group, because I really benefited from my brother's council. “

Tony expands a little on the influence of his brother:

“ My brother was at the time already among the best on the French team. So I saw very well how he trained and the work he did at home in analyzing videos in trying to compare what he did with what the best did. There was also the vocabulary which I heard all day long from the age of 5 on, since my father and my two brothers “spoke canoe,” which isn't the case in most families.

I think I was in the medium longer than my opponents and it saved me a lot of time. I also benefited from the equipment that my brother didn't use any more. So, compared to my adversaries, I had much better equipment, too.”

Here are a couple of examples of the kind of things Tony was learning at the time:

“ Until I became a Junior, my brother and my father really insisted on the technique and my training sessions were especially focused on the being at home on the water. We were here in Pau in a place where the river is rather easy but there is always running water. From the time I started, they always insisted on my acquiring an ease on the water and the ability to surf waves and holes and not just to work on the physical aspects of the sport. I started to work on the physical aspects starting as a Junior where we gradually started doing workouts to develop our aerobic capacity. But initially, the priority

was above all on technique, to get a good feel for the boat, to learn balance, and to get all the skills.”

Tony’s involvement in canoeing was by no means the only sports involvement he had, either, both as a youngster or even today:

“ What is rather funny in our family history it is that my father was a Professor of Sport, Aldric is a Professor of Sport, Patrice is a Professor of sport and I am a Professor of Sport. From an early age, there was this sporting education where our father made us do a little athletics and a few team sports. We did a little of everything. We did a lot of skiing, both alpine and cross-country. We skied in the winter and canoed in the summer.

In fact, my first races were in cross-country, not canoeing. So, we did a bit of everything, even parasailing, and we had a rather big education in sports generally. Today, I'm really happy about that because I have a lot of fun skiing, biking or doing other sports. I think they help canoeing in terms of balance and even with learning about the natural environment. It's fun to go put yourself in the mountains or in the ocean and to try to adapt to the natural environment.”

What Kind of Student he was

Tony admits that he was never really good at school because he liked sport too much:

“ I was always serious in the sense that I always passed at whatever grade I was in and I was a more or less normal student as witnessed by the fact I became a Professor of Sport at age 22. Today, I've started studying again in a business school. I'm starting to tell myself that it's important to be serious with my studies. But in the past it's true, I was pressed for time and did the minimum necessary to graduate to a higher class.”

Types of Early Training

Tony picks up the story about the kind of early training he did:

“ When I stopped paddling K1 after I'd already done some races, I was already comparing myself to the Cadets even though they were older than I was. So, I had already reached a good level in K1 and I especially liked racing. I think that even before switching to C1, I had already liked racing. The trick for me was to transfer to the C1 the technical approach and the feelings of pleasure that I was having in training. So, I trained by myself much more and by age 13, I went from 3 workouts a week to 4. Furthermore, in the evening, it didn't bother me to take my bicycle to workouts because I was really having fun.”

Here is what he says about the boat sessions, around the year 1992:

“ I think they were rather long sessions lasting two hours. Today, when you train, it doesn't last more than an hour or so and at the end of an hour, you're fried! But I remember when I was a kid I stayed in the water a very long time. We were a small group of 5-6 kids. I did C1, the others did K1. We had a lot of fun on the water. Each kid designed a course and the others tried to do it.

We kept challenging each other, always just playing. At the time it was not very structured and there was no coach or advice about training or timed runs. From time to time, my father was there but more to keep an eye on safety. Once again, the goal was to master technique. We looked at what the older ones did, Patrice, Aldric, or even the other racers in the club and we tried to do the same thing. I think I really spent my whole youth trying to copy and imitate the older kids and the adults.”

1994 -- A Key Year

1993 was the first time Tony participated in a French team selection trials and the French championships. The next year, 1994, was his first Junior World Championships, in Wausau, Wisconsin, USA. Although he had the fastest running time, three touches pushed him down in to 8th place.

“ It was a good experience. I left a little disappointed by the result but motivated by thinking I'd had a fast time but I needed to learn how to handle the psychological aspects of racing better so I wouldn't have as many penalties.

I didn't have a real style yet. These were my first competitions. I liked to paddle fast and take chances, to act like the big champions. I had images in my mind of running the gates as close to the poles as I could but I didn't have the technique to do it yet.”

Listening to Tony describe this reminded me of something I believed when I was coaching, something summarized in this quote by Lubos Hilgert, Sr, in the early 1980s: “It's easier to make a fast boater clean than to make a clean boater fast.”

In other words, I used to feel that it was more important to develop a young boater's speed first and then worry about the penalties a later (along as they were only inside touches, not 50s). Because you can't win unless you first have the speed to win. You can only be so “clean” but you can always get faster. So the first thing to do is work on being fast enough to win, then worry about cutting out the penalties. I asked Tony what he thought about this:

“ I agree with that. I think initially, it's about speed, then the penalties later and when you get to a high level, of course, you've got to be able to be fast without penalties.”

1994 was also the first year Tony had a coach other than his father, Philippe Vuitton, who was responsible for Juniors from 1994-6. After that, he was to remain Tony's coach through the Athens Olympics in 2004, after which he stopped and Yves Narduzzi became Tony's coach.”

Tony explains the influence Vuitton had on him:

“What I liked about Philippe Vuitton was that he was not specifically a canoe coach but rather a kayak coach. So, he never really coached me on technique even though that's what your normally expect in a coach: “this gate, you need to run it like this, etc.” I think not having a C1 specialist worked well for me because I understood it was up to me to evolve the technique myself. You can ask for advice from the coaches but you can't just wait for them to give it to you. He was good because he made me share his concept of K1 and then try to transfer it to the C1.”

Take the 1994 Junior Worlds for example. At first I expected him to tell me technical things that would help me have a good run. But instead he said to me that what was

important at this race was identifying the key tactical areas of the race, i.e., to exit quickly from this gate, to go slower in that one, to be able to reaccelerate in this place. He was also good on the warmup and the warmdown, all things that have a bearing on your performance but which athletes tend to diminish the importance of. When I was young I didn't think about these things at all."

But while Tony was not getting a lot of technical coaching from Vuitton, he was getting some from watching his brother, Patrice:

" I didn't train with Patrice very much because he was a lot older -- he was 20 and I was 15 -- and I wasn't good enough to paddle with him. And even today, I don't train much with very young athletes for the same reason. On the other hand, I often watched Patrice. I saw how he did things, how he prepared, the way he ran gates. Starting in 1997, when I was on the Senior team, we trained more together, though, about once a week. And then in training camps, of course, I trained with him every day."

1995 and 1996 -- World Cup Races and Watching Patrice at the Olympics

Tony first made the French Senior team for the World Cup in 1995 and he was in the final at Tacen and thus in the top 15 that year. "People were telling me that was pretty good for a first World Cup, seeing how I was still only a Junior."

And in 1996 Tony's first World Cup win was at Prague.

" I was in the Olympic Team trials and then in training camps for the World Cup races. I remember training with Patrice some just to give him a little competition and generally just to be there for him.

1996 was really important for me because it was the year when my brother got a medal at the Atlanta Olympics. I said to myself if he could win a medal, then so could I and I decided that I wanted to do that (in the World Cup races that were coming after the Olympics). It gave me the desire and I began to dream about it as I watched Patrice on TV at Pau.

My first Senior World Cup win was important because it came when I was still a Junior. I even beat Pollert, who was the Olympic champion in 1992 and Martikan, who had just win the '96 Games. Sure, it was after the Olympics when perhaps they didn't care all that much but still, it was important to me. I knew I'd be in the French team again and that I had 4 years to get ready for the next Olympics."

Training at That Time

Up to 1996, Tony was in Pau, in school, and he trained about 5 times a week then. But after that season, he really picked it up:

" After 1996, I went to Toulouse and I trained every day and sometimes twice a day. I integrated into the Seniors' structure: I trained with Addison-Forgues, Brigitte Guibal, Laurent Burz, with the best French paddlers. So I was training a lot after 1996. And for the first time I had Philippe Vuitton as a coach every day."

First Senior Worlds

Tony's first Senior Words was in 1997, in Brazil where he placed 13th, "which wasn't bad." With him on that team was Yves Narduzzi, who is now his coach. Yves has some interesting comments about what Tony -- and Patrice -- were like in those days:

" What I remember rather clearly, it is that Tony was not very sure of himself and he asked a lot of questions. I was happy to discuss things with him and to exchange ideas with him. And I was very often surprised to see the results afterwards.

For example, he'd say things like "this gate is too difficult, I'm never going to be able to do it." But then he'd do fine in the race. And then other times when we were looking at the video and I might be a little unsure of myself and ask questions, he didn't seem to need any particular advice. In the beginning I wondered whether he was bluffing a bit. But I realized rather quickly that he wasn't. He just wasn't aware of the talent and capacity he had.

It was the same with Patrice, who I really like because he was also very professional in his training and yet very honest on the water. In other words, competitive workouts really motivate you to give 100% effort. But when you're out of the boat, in everyday life, you want very friendly relations with no tensions or rivalries."

In those days, it wasn't automatic that boaters could live like that; things have changed a lot since then. But I remember that at that time I was rather happy with the interpersonal dynamics on the team and I think Patrice and Tony had a lot to do with that. And Tony's kept that going right up to the present day. In other words, it's a very sane competitive environment. On the water, the athletes give their all in training sessions, but off the water there is no meanness that you often have in human relations. I find it's all very pleasant and furthermore it's really impressive to see the talents of these athletes and the results that they can produce in those circumstances.

But despite the fact others felt Tony brought a great psychological attitude to the sport, he himself felt that he might benefit from seeing a sports psychologist and here he speaks about it at length:

" Another good thing in 1997 was that I made the final at the Senior World Cup final in Minden. But the main goal of being in the Worlds and starting to get good wasn't reached because even though I had a good running time I had penalties. I realized that psychologically I wasn't very good at big races and that I wanted to go too fast. I realized I had the technique and the physical ability but I needed the mental ability. So, after that race I started working with a sports psychologist.

What the coaches were telling me and what I was hearing was that psychologically, under pressure, I wasn't able to stay concentrated and paddle up to my level of ability on the day.

My sports psychology coach was Isabelle Inschape. She worked in Toulouse and was a psychologist who concentrated exclusively on sport. At the time that didn't exist very much in canoeing and kayaking. I didn't know any other athletes who consulted a sports psychologist.

I discussed the idea a bit with Vuitton and with Pierre Salamé who told me that I should try it and that this person was a specialist. So I went to see her rather regularly once a month in the beginning. The idea was to give canoeing the right emphasis in my life, i.e. to be able to do a lot of canoeing but still have a balanced life.

She didn't know anything about canoeing, so she couldn't tell me why I was hitting the gates and what I was thinking about when that happened. That was a little frustrating because I had gone there thinking she was going to tell me very specific things I could do to stop hitting gates. So I was a bit disappointed and wondered how this was all going to help. Then I said to myself that I needed to realize that if I hit gates, it was because in my training, I was lacking the right balance in my life. And she gave me some advice about that, which allowed me to prioritize things.

It was pretty general, though. We never got into technique. Sometimes I could give her a pretty precise question about canoeing for example, during a run, when I hit a gate, it had a tendency to make me hit other gates because I was trying to make up the lost time. I tried to speed up and I made more mistakes. I tried to describe exactly what was happening and to understand why I was doing that. So, sometimes, we worked on very precise things, but 80% of the time it was more general.

I still work with her today. In the beginning, from 1997 to 1999, it was pretty regular. But since the 2000 Olympics, it's been a lot less regular, about once every 3 months, because basically I have fewer needs. But I'm still interested in working with her because she knows me really well now. Sometimes it's interesting to discuss with her things like who I am, where I want to go, and what are my reasons today for wanting to continue to race now that I've already won the Olympics twice. These are simple enough questions, but it's not always easy to answer them. “

1998

In one sense, 1998 was “a bit of a hollow year” for Tony because there were no World Championships. But in another sense it was an important one because it was a big work year in general physical preparation and running so he could be really fit for 1999 and 2000. It was also the year he started weight lifting:

“ Up to 1998, I never did any weights and never even was in a weight room. I got my weight training on the water. I need to have fun. Weight training here in France, it's not really in our culture. The first year, there were no miracles, but I made a start. And it enabled me to get a lot better in 1999 and 2000. I still do it today.

At the time, we did specific exercises such as pulling exercises to work the muscle groups you use in canoeing and kayaking, such as the pectorals, the biceps and the forearms.

Today we are in the process of adding to the weight training a little to include work on the “core area,” the abdominals, the lumbar muscles, the connection between leg and arm muscles, so that you get more power in driving the boat and don't waste any energy. We still do more or less the same upper body exercises as before, but now we've added on the core exercises. We do about 2 weight workouts a week, with each session lasting about 2 hours.”

1999 -- Olympic Qualification

After 1998, Tony's objective was 2000, to go to Sydney. "For me going to Sydney meant I needed to qualify an Olympic slot for France in 1999, so I had to be strong in 1999."

Winter Training in Australia

"Since we were getting ready for the Olympics in Sydney, we went there for one month in October and one month in January. It was the first time for me to go south during the winter because until then I still wasn't in the Elite class in France. Each year the French team has a winter training program in warm weather. But I only got into the top French team in 2000. So, I wasn't in those training camps until then. "

Training in 2000

Tony says that his training for the Sydney Olympics was really just a continuation of the workouts he had been doing since 1998:

" After 1998, there were a lot of very serious workouts and it's true, workouts where every day, I had a very precise objective leading up to 2000. But training sessions didn't change very much. When things start to go well at races it's because you've trained well in the years leading up to them. It doesn't just happen on race day and everything I did in 2000 was because of what I did since 1998.

Since 1998, it's between 10 and 12 workouts a week. Each workout lasts between 1 hour and 1.5 hours on average. This year we did weight lifting a little longer and that's new for me."

One thing that was different in 2000 was that Tony was able to focus completely on paddling that year:

" I think the important thing in 2000 was that I took a sabbatical year from school and did nothing but canoeing. I had gone back to school in 1997 to get a diploma that you would normally get in 3 years but I got it in 1999. Then in 2000, I only did canoeing which allowed me to recover better between workouts and to be completely focused on racing."

Olympic Team Selection

"The objective was to get Olympic slots in 1999 at the World Championships in Spain, and that was decided in those days on the basis of the qualifications and not on the final. The objective of the French team was to get two slots since you could only have a maximum of 2 for the Olympics. I had a good season and won the qualifications at the Worlds, so I got an Olympic slot for France, which was a big relief for me because it was a first step in getting to the Olympics."

So, while France now had two Olympic slots, the actual people who filled those slots would be decided at an Olympic trials race in France in 2000. But then something unexpected happened in the finals of the 1999 World Championships:

“ That was very, very difficult for Patrice and me, because in 1999, in the qualifying race at the World Championships, which was also the Olympic qualifying race, France got 2 slots. I won and Patrice got 3rd. The next day, Emmanuel Brugvin, who was 5th or 6th in the qualifying race, won in the final and thus became World Champion. And in France, the World Champion is automatically preselected for the Olympics. So now there was only one other Olympic slot left.

Patrice and I looked at each other. We only had one year before the Olympics, we both wanted to go and that was not possible any more. So, it was going to be necessary to prepare as well as possible and then let the best man win the selection trials.

That was very difficult for me on the psychological level and I had to work on it, i.e., to be able to focus on myself, to forget the competition a bit and to tell myself “my objective is the big day at the French team trials and I've got to give my best. I'm not going to pay a lot of attention to what the others do and I'm not going to waste a lot of energy thinking about the competition.”

That was important for me because it was very difficult with my brother because there was an emotional side to things. But I had to be strong on the day if I was going to go to the Olympics because someone else could win the trials and it might not be necessarily be my brother. I had to forget that there was a brother and to tell myself that he was a competitor. I had to be to 100% on the day.

Did all of this change the relationship between the 2 brothers?

“ Yes. We distanced ourselves from each other a bit in 1999-2000 even though we had always gotten along well up to then. We told ourselves that during this one year, people were going to expect us to be opponents and that there would be a little war between us. So we decided to stop training together. I was in Toulouse, he was in Pau.

We always respected that and things always went very well. We saw each other at our parents' home but we didn't talk about canoeing.

Both of us were strong. At the time, Patrice was one of the best French racers and hoped to go to the Olympics. That was my dream, too. We made our preparations in our own corners and I beat him by few tenths of a second in the French team trials. It was very difficult and for me, that was the hardest race of my career because I knew that when it was over, it would end badly for one of us, even if we both raced well.

That was tough to handle. Patrice got through it well, though, and helped me get ready for the Olympics in 2000. He trained with me a little and gave me some advice. So, his reaction was exemplary, which goes to show how well things had gone between us. “

Racing in 2000 before the Olympics

“For the season of 2000, there was a sense of relief after the I got selected that made it easier for me at the international level. Right after the selections, there were the European Championships, which I won 3 months before the Olympic Games. That was important because it was my first big win in a championship. Then, I won each race of the World Cup before the Olympics. I think I was able to look at these races more as just

training on the way to the Olympics and that took the pressure off. Then I realized I had also performed well and that gave me a lot of confidence.”

Small Change in the Boat

“ I was making little changes every year on my boat. So, there wasn't a big change in 2000. I think the big change was just that I was only doing canoeing, getting into great physical shape, being able to take time to reflect, to recover well from workouts, to go to the masseur, to do everything to succeed. “

Keeps Seeing Isabelle

“ We kept up the same work that I explained before, making sure each workout had a very precise objective, whether it be at the psychological or physical or technical level. As an example, take the idea of focusing on a difficult gate on a course. Isabelle helped me make all the gates equally important and not to necessarily stress one in particular. Each second of the race has the same importance and I could make a mistake or gain a little bit of time each second. So you have to try to focus on all the gates and all the seconds so you don't lose energy on one section.”

Being at the Olympics

“ The 3 months between the team trials and the Olympics were very intense because during this time we traveled a lot. We were in the best shape and we felt good. The coaches were completely at our service. Because it was an Olympics and not just a World Championships, there was more pressure than usual. But I figured out how to deal with that and I was very happy. I really had a lot of fun during those 3 months getting ready for the Olympics with my friends. Then, came moving into the Olympic Village and having the opening ceremony and seeing a magical world that you can't know about from just watching the TV coverage.”

Interestingly, though, Tony purposefully did not ask Patrice about what to expect at the opening ceremony:

“ I think I asked him a lot of questions when he got back from Atlanta and he told me a few things but I know in 2000 that on the even of the opening ceremony I didn't want to have any advice because I thought it was an event you had to experience yourself to and I didn't want to know how it was going to transpire. “

The Race Itself

In Sydney, it was Tony's turn to represent France in the same event his brother had 4 years earlier. Although he had never placed higher than thirteenth at the World Championships prior to 2000, Tony won.

He qualified for the finals with the second best time, slightly behind Slovakia's Michal Martikan. Then Tony had the fastest time in the first run of the final, giving him a significant lead of 2.30 points. In the second run, it was Martikan who was fastest and flawless, but Tony, although he touched a pole in the second half of the course, had built up too large a lead and he got the gold.

“ I thought I could win the Olympics because I'd won all the races that year. The competition was pretty intense but you could say it all went pretty ideally for me. I did well in the qualification races without really tiring myself out or losing a lot of energy. On the first run of the final I had a really good run, being quite a bit up on the second place finisher, Martikan. It was a lot harder 4 years later in Athens because there it was a matter of hundredths of a second with Martikan. But at Sydney after the first run, I saw I was way ahead. “

That takes away a lot of the pressure because I think what's hard in a slalom race is to manage the tension all the way to the last second.

But it was still hard in Sydney because I still could have lost it on the second run, with a gate touch, etc. But I did well because I felt I was still within my limits and I was completely capable of having another good performance on my second run. So, I was rather calm and I had a lot of fun with it. I didn't need to completely isolate myself from the other racers. I was already calm and relaxed enough. In Athens, I really handled it completely differently because it was much harder at the emotional level since the competition was much harder in Athens than in Sydney.”

And summarizing his feelings about the whole experience, Tony has this to say:

“ The master word for me in 2000 was “liberty” because it was the first year I was free to do only canoeing, when I was going to be in the Olympics that were on the other side of the planet. France was far away, I felt a little bit alone and for the first time in 22 years, I felt pretty independent and everything went well.”

Aftermath of the Olympics

Just after the Sydney Games, Tony was made part of a technical commission to produce a new artificial whitewater course in his hometown of Pau, in plain sight of the castle of Henri IV, which dominates Pau. It's supposed to be like the Athens course and is expected to become the French national training site.

“ After the Olympic title, my status changed within the French team and even within France itself. In 2001, I was asked to promote canoeing and kayaking, (And to be part of the French group lobbying for Paris to get the Olympics in 2008 - which Beijing got.) I got invited to the big parties that there happen after the Olympics, even to ones that don't necessarily have anything to do with sport. It was new for me to have responsibility for promoting and developing canoeing and kayaking in France. It was very interesting and I enjoyed myself because I wanted to share my success with others.

2001 was a very packed year for me because I resumed my studies so I could pass the Professorship of Sport exams and get the diploma. I had to go back to the books. It was also interesting to take a break from canoeing, to train a lot less, to do other things, to live in Paris for six months to pass my exams. I trained a lot less, my sports goals were to do the Ocoee World Championships because I knew I was preselected no matter what happened and I would not be required to do the races in France. So, I took the time to do a lot of other things and I started training again in June. The Worlds were in September. So, I had time and it was a bit of an “off year” in terms of kayaking but a good year in terms of being able to do other things.”

Repairing Relations with Patrice

“After the 2000 Olympics, we got a little closer again. I gave him a lot of credit for his enormous help in winning the Olympics. I tried to associate him with this win a lot. And I also associated a lot with him in terms of developing the sport in France. It was very positive. In 2001, we were still very close. We trained together, we made a boat together for the first time with Galasport.

But after 2002, we felt the progression towards the Olympics was starting up again and the objective should be to remain on good terms but to create again a little distance between us, with each one training in his corner.”

2001 Race Season -- Worlds Canceled

After Sydney, Tony was looking forward to the Ocoee Worlds because he had never been individual World Champion (still hasn't been). He also felt the course was similar to Bourg St. Maurice, site of the 2002 Worlds, and thus would be great preparation for that. But then Ocoee Worlds was canceled because of 9/11.

“ I couldn't make the first two races of the World Cup because I had exams in June. So, the World Cup wasn't that important for me. I had decided that for this year only one thing mattered, the World Championships. So I prepared only for that. Then suddenly, not being able to be in the World Championships, it really was a year off because there was nothing at the sporting level for me. But it was still important year because I became independent financially while working to become a Professor of Sport.”

2002 -- Bourg Worlds

“ This was my first World Championships in France. This was a big goal for me because I was at the top of French canoeing and kayaking and I was there to promote the sport in France. In Paris, I kept telling everyone, “Come to Bourg St. Maurice. There's going to be a big gathering there; it's going to be great!” My goal was to win those Worlds, to build on a certain amount of fame and continue the buildup to the next Olympics. It was a year when I started training seriously again.”

Tony still had school obligations, though:

“ I was a Professor of Sport and when you are a Professor of Sport, you have one more year to finish your training. In other words, you start working and start getting paid but you are still being evaluated by an inspector who comes to see whether everything is going well.

So, it was a year when I had to work a lot to finish my degree but I was still able to resume the same level of training I had in 1998 and 1999. I trained normally and everything went well. “

Loses the race --- But Learns a Valuable Lesson

“ But the thing that marked 2002 was my defeat at the Worlds because I finished 38th, having gotten a 50, missing a gate in the semifinal. What happened was a very good lesson for me. It made me forget I was Olympic Champion and to tell myself “You are not

the best any more and if you want to be Olympic Champion in 2004, you've got to start all over again, to forget what you did in the past and to start again from zero." 2002 was a good slap in the face because I forced me to start over again, whereas from 2000 to 2002 I had lived a little on my assets, telling myself "I am Olympic Champion, I know what to do, I'm going to win, everything's going to work out well."

2003 -- Comeback Year

" 2003 was my comeback. I won the overall World Cup. I was second on the World Championships. It was a good year at the sports level. I was behind Martikan who had won in 2002 and 2003 and who announced that he was my great competitor for the 2004 Olympics. But I was happy because I was getting back into racing and I felt I could beat him in 2004 because I beat him at World Cup races."

Getting Ready for Athens Olympics

" I told myself that the only thing that counted was winning at Athens. After 2002, the objective was 2004 and things got back on track again in 2003. 2003 motivated me and told me that everything was going well but I had to continue to work because Martikan was still better than I was. But I wasn't too far back, so anything was possible.

I did what I did before, had a good year before the Olympic year, to set things up so that in the Olympic year I didn't have to do anything except canoeing and try to beat my brother and the rest of the French team at the trials. "

Goes to Australia Again

As he did each winter since 2000 (so in 2001, 2002, 2003, and 2004), Tony went with the French team to train in Penrith again.

French Olympic Team Trials

" It was a little easier for me in 2004 because I was doing well and I was able to win the 2004 Olympic trials a little easier than I did in 2000. In 2000, it was really close because I won the first race, Patrice won the second, and in the third, we were only a few hundredths apart. But in 2004 I won the first two rather easily.

After that, in the lead up to the Games, I felt good mentally and calm. I told myself that the only thing that counted was the Olympics and so suddenly I had confidence in the outcome of the races, winning all the World Cup races before the Games rather easily, that is, without having to go really fast or trying to do really hard things. I arrived in Athens ready to win, telling myself that it was going to be very difficult but everything was possible because I was strong."

But being the reigning Olympic Champion did carry a certain amount of pressure with it:

" The thing that was different compared to 2000 was that I was I was in a conspicuous position at the head of French canoeing in 2004. France is actually a pretty sporting country, given that it's a small country. And the Government sent 5 athletes from all sports, saying they could win the Olympic Games. I was one of those 5 athletes. There was somebody in Judo, somebody in track and field and for the first time, somebody of

the canoeing and kayaking. People felt that when it came to promoting the sport, I had succeeded in lifting people's spirits and now it wasn't just the canoeing and kayaking team that was encouraging me, it was the whole Olympic team and even all the people who had started to follow Tony Estanguet in canoeing and kayaking.

It was good for me and it was a position to be defended. I felt a certain amount of pressure. The journalists were much more interested in me. They wanted to talk with me a lot more before the Olympics in 2004 than they were in 2000. In 2000, I saw them only after I won.

Starting about three months before the 2004 Games, every week, there was an interview. It was a little different but it was good because it forced me to be very professional and to not to fall into the trap of wanting to just redo 2000 rather than doing something different for 2004. I knew that I could not be Olympic Champion by just doing the same thing again and that it was absolutely necessary to come up with a new plan. So, I forgot 2000 and I tried to approach these Games as if they were my first ones.”

As an example of one thing Tony did differently, he changed coaches. For the 2000 Olympics he was with Pierre Salamé but in 2004 with Philippe Vuitton again.

“ It was good because we were going to discover the Olympic Games together. Then, at the physical level, I didn't try to look back at what I'd done in 2000 but to really try to do something new for 2004, based on how I felt, to plan according to the moment. As for the boat, I did the same thing: we made a new boat for 2004 for the Olympic course. We didn't look at what had been done in 2000. At the technical level, I tried to advance gradually. In all the parameters of performance, we really tried to prepare for the Olympic as though it was for the first time.”

Going to the Olympics as the Favorite

“ This time it was a lot more impressive because even other athletes came to see me and to ask for my advice. In 2000, I remember I was in a bubble and didn't speak to anyone. I was at the opening ceremony but I didn't talk. I was already in my run.

In 2004, I couldn't do that because in all sorts of ways people were coming to me, asking me questions. I was a bit of an ambassador for the sport. I told myself I couldn't stay in my bubble this time. So I had to deal with that and respond as best I could to the requests. Above all not to try to fight it because I was going to lose energy fighting it.

So, I said to myself: “You have to get ready to deal with this, too. You know that in 24 hours, during the opening ceremony, there are going to be a lot of people there, a lot of journalists, a lot of sports people who are going to come see you.”

So I was ready for it. I was even a little relaxed. I had rested before the opening ceremonies. I looked at it as another competition before the Olympic Games. There wasn't only the qualifications and the final, there was also the day before. There were 3 phases and each one was important to do well in, right to the end. It was something new for me and really fun.

I benefited from the festival atmosphere because I talked with other people and I saw there was a lot of emotion in all the sports people there and there were only great champions there. I really benefited profoundly from that moment.”

The Race Itself

In the opening heats, Tony again qualified slightly behind Michael Martikan. In the finals, Tony paddled a penalty-free run. At first, though, Martikan was put in first place, Tony in second. But after a few minutes it was found that although Martikan had had a touch on gate 7, it had not been registered in his score sheet. Once that was sorted out and the penalty added, Tony was put in first place by 12 one hundredths of a second. Here are Tony’s thoughts about it:

“ With regard to the race, at the technical level, it was a very difficult course and I had a lot of trouble with it. Also, it was really competitive because Martikan was there this year much more so than in 2000. So, it was really a very difficult race and on the first run of the qualifications, I felt that even though I was paddling well, was even at my best, Martikan was right there.

I felt it did not depend just on me. It was also necessary that Martikan’s run not go perfectly. So, it was real duel and it was very, very long and very intense, and very hard psychologically. I think it was the most difficult race of my career because it was like a marathon. The more I was tired, the more I had to fight and not give up. “

How did he handle this “duel?” Did he think about it or did he try to occupy his mind with other things, to avoid thinking about it?

“I tried to forget it and to focus on me, but I was caught up in the duel. As soon as I crossed the finish line, I looked at Martikan’s score, I started comparing even before thinking through what I had done on the run. So, I was in this duel and was captivated by it.

It wasn’t my best race. I don’t think I paddled right up to my level of ability at the 2004 Olympics. I didn’t have the perfect race. I made many small errors, more than in 2000. It was very intense and it was a hard duel to manage but I managed it better than he did, which was the main thing. It wasn’t the day I paddled the best but at the psychological level, I think it was the day I was the strongest.

I think in 2000 I had better feelings because I was able to enjoy the competition more, whereas in 2004 it wasn’t really very pleasant during the action because it was so close. I had a difficult time with the river and my competitors.“

Aftermath of the Olympics

After winning the Athens Olympics, just as happened after Sydney, Tony was again asked to become part of the group pushing for Paris to get the Olympics, this time for 2012, but once again Paris fell short, with London winning the bid.

And, of course, he became increasing well known:

“ I think my fame has grown locally here in Pau. Today when I’m on the street, people recognize me, which wasn’t the case before. That’s changed. At the national level it

hasn't changed a lot because canoeing is still a little sport. But everyone who likes canoeing knows the name Estanguet. So inevitably, yes, I guess my status has changed. But I am still just a little guy who has become a little more important, that's all.

With Beijing coming up, people are beginning to think about the possibility of my winning a third time. And that's never been done in France in any sport, so it's true, it would be something new for us.

But otherwise I don't think my life has changed a lot. That is, I'm still a Professor of Sport, I still love canoeing. I've got a little money. There are a few more people who recognize me but other than that, life's pretty much the same. "

Tony's been employed by the Ministry of Sports to develop and promote sport in France.

Sets New Record

Regardless of how Tony felt about the race, he set a new World Championship/Olympic record in terms of coming close to the winning K1 score -- 100.6%. The previous record had been set by Jon Lugbill back in 1989.

Death of Henri

Although a lot of wonderful things happened to Tony after winning in Athens, one thing that happened was not: the death of his father, Henri. Tony and Patrice were understandably distraught and neither wants to talk about it very much.

Repairing Relations with Patrice -- Again

Right after winning the Olympics for a second time, Tony said this to the press about his brother:

" I think a lot about my brother. If I am today in first place it's especially thanks to my brother who pushed me into always doing my best... When I win a medal, I always feel that I owe it to him. I divide it with him. His example saved me so much time. My being Olympic champion at 22 and then today, it's really thanks to him."

After not making the 2004 Olympic team, Patrice stopped competing. And Tony was able to reconstruct a normal relationship with him:

" Today, he continues to help me a little in canoeing by helping me to design better equipment. He gives me advice about technique. I give him videos of me, he watches me a little.

And above all, we are able to speak much more easily about those things that we were afraid to discuss before because we feared upsetting each other. Today we know that we won't upset each other since he's retired from racing, so it's easier for me to call him.

And he also calls me a lot more often. Before, we were afraid of bothering each other. Today, it's much more pleasant because we're completely brothers again. "

Training for Beijing

“ Inevitably, I'll try to use a different approach for Beijing, because once again, I think you shouldn't just try to redo something that worked once before. I can't just redo things. I can only come up with new ones. I'm in the process once again of starting all over again -- changing the boat, changing coaches -- which once again enables me to try new approaches. We're working at the psychological level to find new sources of motivation, to develop more determination and not just to fall into a routine and always doing the same thing.

It is always hard to find new things each time because at the end of the day, there aren't 100, 000 ways of doing canoeing. But you try every day to find something new, in weight lifting, for example, try to find new and different exercises each year. Or try to find new sources of motivation.”

Advice to Others

What advice would Tony give to someone starting, say in a foreign country who didn't have the French system of institutional memory and knowledge and support system to work within? What should someone like that really focus on?

“ The first thing, I think, is to know yourself. What I'm trying to do every day in this sport is to learn a little more about where my limits are. And I don't think you should do it just for the sake of competing. For me, the competition is just a way of knowing myself better.

It's not just a matter of playing with adversity. It's a way of pushing back the limits with respect to other people. But the ultimate goal is to know yourself better.

So, in the beginning when you start, it's to know what you're looking for in sport. Is it pleasure? Is it physical effort? You have to try to know why you want to do sports. And then, step by step, each time you do something, try to make a small assessment by saying "What's good for me in what I did? What I could do differently, better? Is it right for my personality and my desires? "

And secondly, you have to become knowledgeable about what other people have done in the sport. Basically you have to try to improve on what's already been done, what's been done in other countries and by other people, what works.

I think today it's almost impossible to get to the top if you start with nothing. You can't invent everything in canoeing and kayaking. (Although when you're at the top you have to try to invent a little and create new things.) So, you need to read the stories about the top athletes and watch videos of them in races and training, just like I learned from the videos of Jon Lugbill and Gareth Marriott and my brother.

It doesn't happen overnight. It's an evolution and you have to completely familiarize yourself with what the generation before you did. The best way to do that, in my opinion, is to get videos and try to copy what you see.

One technical thing you can do is learn how to change your stroke rate during a race: I think what we in France do maybe a little more than foreigners do, is to change the length of work efforts during workouts. In other words, work sometimes on pieces that

are 5 minutes long and sometimes on pieces that are 5 seconds long. And when you're doing these for time, inevitably you have to adapt your stroke rate to the length of the piece. When you have to be strong on 5 seconds, 10 seconds or 15 seconds, you have to develop a stroke rate that's higher than for 5 minutes.

My objective in these workouts is to find a good cadence for the length of the work interval. I know that in the race, I have to identify with my coach the places where I can paddle calmly, making big, powerful strokes and the other times where I have to reaccelerate the boat with 4-5 paddle strokes and have to shorten the stroke a bit.

And finally, paddle almost every day in whitewater and in gates. I do very few workouts on flatwater without gates. Almost never. I don't like it and I need to get pleasure from the whitewater and being in the gates.”

Appendix -- The C-1 Slalom Forward Stroke

By Emmanuel Brugvin

Translated by Jamie McEwan

(A version with pictures, can be found at <http://cboats.net/technique/>)

This technical essay is the product of observations and analyses of the elite international C-1 paddlers of the early 2000's. It offers a distillation of the styles actually being used, and so does not pretend to be the unique truth, but rather a model of proven and widely recognized techniques.

Introduction

If there's one slalom discipline that demands the most precise and practiced stroke for maneuvering through the currents and crosscurrents of whitewater, it's C-1 slalom. In contrast with all other classes, in C-1 the propulsion is asymmetrical. Not only should the stroke be powerful, it should also be carefully calculated to make the boat go straight. "Force is useless without direction." This aphorism sums up the first priority of the C-1 paddler. Too many ignore this "detail," in effect putting the cart before the horse. How can you hope to paddle quickly and precisely, performing complex and technical maneuvers, if you can't even go straight? Improve your forward stroke and you'll see a vast improvement in all aspects of your paddling. Every maneuver will become easier, giving you an extra dividend of speed from any given level of fitness (especially at the end of the course).

But before beginning to perfect your stroke, it's essential to be well fitted into your boat. It is the outfitting that connects paddler and boat, enabling you to be one with your craft.

Here's an exhaustive list of the different phases of, and technical specifications for, the C-1 slalom stroke.

Step One: Planting the Paddle (The Attack!)

1) Maximum back arch (pelvis tipped forward)

[A minimum of weight on the knees. Instead the weight should be between the knees and the buttocks (boat stays flat throughout the stroke).

2) Chest is canted strongly forward (careful not to lean more on one knee than the other).

3) Reaching out with the lower shoulder (shoulder remains dropped).

[Careful! Avoid rotating the shoulders, which has the nasty tendency to cause the pelvis to twist, and therefore to weight the knee on that side as a support. Instead keep both the hips and the shoulders in the same axis, without twisting either one out of alignment with the boat. The lower shoulder can be extended forward without twisting the shoulders (and without pulling the upper shoulder back).

4) Lower arm slightly bent. (Yes! No longer is the lower arm held entirely straight, as was customary in the 90's.)

5) Lower elbow moves down.

[The slight bend in the lower arm allows good power and a strong catch. Be careful, however, not to exaggerate this flex in the arm; maintain considerable extension. For young paddlers, it is best, at first, to learn with a straight bottom arm, because good extension is the first priority.

6) Top elbow is raised while the shoulder remains as low as possible.

7) Top arm is 1/3 flexed. (Unlike the style of the 80's, when both arms were straight when the paddle was planted.)

8) The paddle is as vertical as possible to keep the boat from turning with the stroke.

[The top hand is directly over the bottom hand.

9) The gaze remains lifted and forward (do not drop the chin).

Step Two: Propulsion (Power!)

- A - Applying the Pressure

10) Immerse the blade.

11) Wait until the blade is completely immersed before pulling on it.

[Still the least possible weight on the knees (rather between the knees and the buttocks.)]

- B - Power Phase

12) Pull with the lower arm (bending the arm).

13) Upper arm: keep pressing downward while avoiding as much as possible pushing forward with the upper hand (as seen from the side).

[Keep the upper arm bent and keep the hand in one place, in order to keep the paddle angled forward as long as possible and improve the transmission of power.]

14) Chest: Still open, maintaining the same back arch as at the beginning of the stroke.

[Pelvis is still tilted forward]

15) Paddle (seen from the front): Maintain the shaft completely vertical, close to the side of the boat, and moving in a straight line.

[Upper hand remains over the lower.]

16) Paddle (seen from the side): Try to keep the paddle vertical as long as possible.

[Try to delay the backward tilt of the blade by keeping the chest open.]

Once the Chest has Reached Vertical

17) Push from the hips.

[Pelvis tilts backward.]

18) Pressure on the buttocks.

19) Push forward from the iliac bones ("sit bones").

20) Push the knees forward.

21) The push finishes with a straight upper arm.

[Keep the top hand over the bottom to keep the boat running as straight as possible.]

22) Paddle: try to keep the paddle as vertical as possible (as seen from the front).

23) Pluck the paddle from the water when it reaches the hips.

[If taken behind the hips, the blade becomes so angled that it pushes the boat down in the water more than forward.]

24) The gaze remains forward (do not drop the chin).

Subtleties That Make All The Difference

Forward Position (weight transfer): During the paddle plant (The attack phase) the weighting of the boat is only slightly toward the bow because there is no weight on the knees. The transfer of weight at the moment of the extension of the chest is from the buttocks to the paddle, passing as little as possible into the knees (not at all is best!).

The Movement of the Torso: during the Power Phase, two movements take place in the torso:

- 1 - The upper torso (chest and upper back), remains open to the sky, as it was at the plant, rather than having its weight thrown onto the paddle and the bow.
- 2 - The lower torso (stomach and hips) is very active, contrary to what is often seen, pushing from back to front. The more arch there is in the back and chest, the more powerful this push will be (due to the greater arc of movement).

Backward Position: End of the Power Phase (the paddle is about to be removed from the water).

Contrary to popular belief, the act of tipping the pelvis backward does not cause the stern of the boat to sink. In fact, since the chest finishes in a vertical position, there is no reason for the weight to shift to any significant degree toward the stern.

Vaulting Past the Plant: This is purely a mental image, but it is all-important! The image is of taking hold, with the paddle, of a fixed point in the water, and pushing the hips to that point, thereby driving the boat forward.

You should imagine moving the hips past the point seized by the blade.

Details for Experts:

In certain cases, when extra speed is necessary, for sudden accelerations or for starting up from a dead stop, it is best to somewhat change the forward stroke. Two solutions are possible:

--The first is to increase your leverage by pushing with the upper arm and/or moving the grip of the lower hand toward the blade (doing both being most advantageous).

--The second is to keep the chest arched and leaning forward without engaging the hips, because this requires less body movement. Obviously, these two solutions can be performed simultaneously. In this case, you have a kind of "four wheel

drive, low gear!" As you remove these modifications, one after another, you will pass from low gear, to second, on through to fifth gear, which is the forward stroke as described.

Conclusion

It can be seen, from the many aspects and subtleties just covered, that the C-1 stroke is a complex and subtle motion that may take years to perfect. But it's worth the effort! Keeping in mind all of this complexity, and adding to it the effect of the unique build and physiology of each paddler, it is easy to see why there is an incalculable number of possible styles, each with its own richness and idiosyncrasy.