

THE SPORT OF ROWING

To the readers of *www.row2k.com*

As we begin the second month of 2011, I am happy to announce that more and more details about my new four-volume history of rowing are being finalized. The regular edition and the limited collector's edition will be available for purchase on this website soon. Delivery will begin in October of 2011.

The collector's edition will be hard-bound with full-color illustrations. It will be individually numbered, signed and dedicated by me. This will be a limited edition, never to be repeated. You may now go to my website, *www.rowingevolution.com*, and get on the list for your copy before they are gone forever. Also sign up for the newsletter, visit the gallery and read the blog.

The following excerpt on *row2k* is the fourth of five that touch on the **women's rowing** from the 1970s to the 2000s.

The subject of this draft chapter is the U.S. women's sweep team during the 1990s under Coach Hartmut Buschbacher. It describes a fine coach and magnificent, committed athletes, admirable World Champions who fell short at two straight Olympics, a tale of enormous effort by larger-than-life heroes.

The following .pdf is in the format intended for the final printed book. It is from the fourth of four volumes.

Join the team!

If you find any typos in this chapter, or if you have any questions, comments, suggestions, corrections, agreements, disagreements, additional sources and illustrations, or if you would like to add your own perspective, etc. please email me at the address below. Your input represents an essential contribution to what has always been intended to be a joint project of the rowing community, so please contribute. If you and I end up finally disagreeing on some relevant point or another, I will be thrilled to present both alternatives so the readers can decide for themselves.

Incidentally, many thanks to all who have written to thank me and to make corrections and add comments, photos, anecdotes, etc. to the recent postings on the women of the 1970s and 1980s, the 1984 U.S. men's scullers and on Ted Nash. Drafts with all the updates are now posted for you on row2k.

All my contact info is at my website. Or you can email me anytime at:

pmallory@rowingevolution.com.

Many thanks.

THE SPORT OF ROWING



The Sport of Rowing

A Comprehensive History

by

Peter Mallory



Volume IV

Plus Ça Change

draft manuscript January 2011

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153. Hartmut Buschbacher in the U.S.

1991 to 1996 – 1997 to 2000

The U.S. Women After 1984

After capturing Olympic Gold in the eight in 1984, the American women's team retreated a bit as the medalists retired and a new generation of athletes took their places. Between the Los Angeles Olympics and the fall of the Berlin Wall in 1990, the U.S. managed only two medals in the eight-oared event they valued the most. Coach **Jan Harville**, a product of Bob Ernst at the University of Washington who rowed in the fourth-place coxed-four in 1984, coached the U.S. to Silver in 1987, and **Holly Metcalf**, a member of the 1984 Gold Medal Eight, coached the U.S. to another Silver in 1990.

Hartmut Buschbacher

With the collapse of the Eastern Bloc, the international field became far more open than it had been in decades. After the Soviet Union and GDR ceased to exist, Canada dominated in 1991 and 1992⁷⁵⁰⁸ while Romania struggled to remain a contender. China and the Netherlands benefited in turn



FISA 1995 Video

1995 United States Women's Eight
World Champion, Lake Kaukajärvi
7 Amy Fuller, Stroke Jen Dore

from the coaching of **Kris Korzeniowski**⁷⁵⁰⁹ from Poland, and the reunified Germany also gained from the changes in world politics by combining the strengths of its two former halves.

As has already been mentioned several times, the fall of the Iron Curtain led to the very quick dispersion of Eastern European coaches. In 1990, **Hartmut Buschbacher**, the finishing coach of the 1988 Olympic Champion GDR Eight (made up of athletes from five of the eight GDR national rowing

⁷⁵⁰⁸ See Chapter 134.

⁷⁵⁰⁹ See Chapter 124.

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centers⁷⁵¹⁰) was hired to win more Olympic Gold for the United States sweep women. The 1996 Olympics on American soil were six years away.

In **1991**, Buschbacher's first season of coaching the U.S., the record for his squad was sixth in the pair, fourth in the eight and Silver in the four. At the **1992** Olympics, the result was sixth in the eight, Bronze in the pair and Silver in the four. Then came the inevitable retirement of many veterans, with younger athletes coming in to rebuild the National Team for the push to Atlanta.

Annie Kakela, who joined the squad in 1992 after graduating from Dartmouth: "The camp system was just starting to take shape over the club feeder system, and having a year-round coach, I think, was relatively new, but people were really fired up about having an East German as coach.

"Hartmut could be very challenging and sometimes negative, and for some athletes that was difficult to handle, but I think that a lot of athletes liked the fact that they had such a dedicated coach."⁷⁵¹¹

Buschbacher seemed to have a particular affinity for the small boat events. In 1991 and 1992, his fours had placed second to Al Morrow's Canadians, the dominant women's sweep team of the era,⁷⁵¹² and half of his '91 Four went on to earn Olympic Bronze in the pair in '92.

As he began the new 1996 Olympic quadrennial, Buschbacher made the coxless-four his priority boat and, following the Canadian example, had the four and pair double up in the eight in 1993.

All that remained from the '92 Olympic squad were coxswain **Yasmin Farooq** and three magnificent rowers, **Mary** and **Elizabeth McCagg**, 6'2" 188cm 170+lb.

77kg twin sisters originally from Lakeside School in Seattle, then third-generation Harvard University rowers, Class of '89, and **Amy Fuller**, a 6'2" 188cm 181lb. 82kg graduate of UC Santa Barbara, Class of '90, the 1989, 1991 and 1992 CRASH-B Ergometer World Champion. Buschbacher put Fuller in the four and the McCaggs in the pair.

Amy Fuller:⁷⁵¹³ "I went from a youngster in 1991-92 to one of the veterans in '93 . . . but I wasn't really a veteran. I was still *very* young. My first 2,000 meter erg test had only been in 1988."⁷⁵¹⁴

Buschbacher as a Coach

Just as with fellow former GDR elite coach **Jürgen Grobler** in Great Britain,⁷⁵¹⁵ Hartmut Buschbacher's real strength seemed to be the scientific training background that he brought from his education in the peerless German Democratic Republic sports system. He excelled in training crews and motivating them for the highest levels of international competition.

Kakela: "In '93, I felt Hartmut did a really good job preparing a pretty green crew. A lot of us were new that year. He did a great job preparing us, putting us through workouts that gave us a lot of confidence. We didn't know what to expect, but we knew we had worked really hard."⁷⁵¹⁶

Fuller: "I had come to the team as a total novice. My first spring race had been in 1988 in Santa Barbara. In 1991, he put me on the National Team in the 2-seat of the

⁷⁵¹⁰ www.sport-komplett.de. See Chapter 119.

⁷⁵¹¹ Kakela, personal conversation, 2008

⁷⁵¹² See Chapter 134.

⁷⁵¹³ Fuller's married name is **Amy Fuller Kearney**, and she is presently Head Coach of the UCLA Women's Crew. To avoid confusion during this chapter, I have referred to her by her maiden name as she was known during that era.

⁷⁵¹⁴ Fuller Kearney, personal conversation, 2008

⁷⁵¹⁵ See Chapter 136.

⁷⁵¹⁶ Kakela, op cit.

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FISA 1993 Video

1993 United States Women's Eight

At mid-stroke

2 **Annie Kakela**, 3 **Jen Dore**, 4 **Cat Fallon**, 5 **Betsy McCagg**, 6 **Mary McCagg**, 7 **Katie Scanlon**

Dore's knees were still well up when almost everyone else's legs were already flat.

eight that went to Austria. I learned *everything* from him.

"The biggest lesson I learned from Hartmut was, 'Be competitive. Don't be afraid to be competitive with your friends. That's how you build great teams. Be *competitive!* Every day give your best.'

"Hartmut also had a scientific approach, and he was very knowledgeable. With the amount of lactic acid testing we did *on* the water, having people pull up next to us in boats, prick our fingers, take our blood at intervals, it got me very interested in sports physiology and moving on from there."⁷⁵¹⁷

Kakela: "I don't think Hartmut spent much time on the rowing technique side. There were plenty of people who came to camp from college who were just rough, rough, *rough!* They might have had phenomenal erg scores, but nobody would teach them how to be effective in the boat.

"Hartmut would try them, give them every chance he could if they had a good erg score, but if they didn't make the boats go, they wouldn't be in the lineup."⁷⁵¹⁸

Mike Teti: "I think the challenge for Hartmut Buschbacher was that he never had to teach anybody from scratch before. He was the top rung [coach] in East Germany."⁷⁵¹⁹

Kakela: "I thought he was better at training people to get them fit than to develop their technique."⁷⁵²⁰

Fuller: "I frequently hear people say that Hartmut wasn't a good technical coach. I remember a *lot* of technical discussions. I remember a *lot* of technical diagrams, unending, forever . . .

"Any shortcomings in technique were our *own* fault, just human error. It wasn't that we didn't talk about technique or didn't focus on technique."⁷⁵²¹

The technique of Buschbacher's first U.S. squad in 1993 was understandably uneven. The vast majority did not row the *Schubschlag GDR Classical Technique* that Hartmut had been brought up with but instead the *Kernschlag Modern Orthodox Technique* they had learned in their home American collegiate programs. This was the same issue that **Kris Korzeniowski** had confronted when he first came to America fourteen years earlier.⁷⁵²²

It also reflected disagreements throughout the Western world during that era, with many local and regional programs teaching "legs, back, arms" sequential Modern Orthodoxy while national-level coaches struggled to convert athletes to concurrent Classical Technique for

⁷⁵¹⁷ Fuller Kearney, op cit.

⁷⁵¹⁸ Kakela, op cit.

⁷⁵¹⁹ Teti, personal conversation, 2004

⁷⁵²⁰ Kakela, op cit.

⁷⁵²¹ Fuller Kearney, op cit.

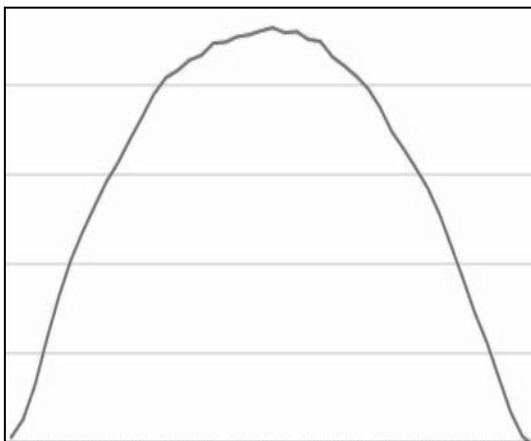
⁷⁵²² See Chapter 124.

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FISA 1994 Video

Jennifer Dore, 6'2" 188cm 165lb. 75kg
 0°, +30° to -20°, 0-9, 0-10, 5-10 Classical Technique *Schubschlag*
 Slight chin lift, late arm draw, ferryman's finish



Author

Hartmut's Ideal Curve
 Parabola

international competition. In this book, this

tension between the two camps has already been discussed in relation to Great Britain, Italy and Canada.

Jennifer Dore

Hartmut Buschbacher's preferred technique was GDR's Classical Technique concurrent *Schubschlag*.

Fuller: "Everybody says I was Hartmut's ideal rower. It's not true. In terms of technique, the closest to Hartmut's dream stroke was **Jen Dore**."⁷⁵²³

⁷⁵²³ pronounced "dory." She has since married Tom Terhaar, Hartmut's assistant during the

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FISA 1993 Video

1993 United States Women's Eight

5 **Betsy McCagg** 6'2" 188cm 176lb. 80kg, 6 **Mary McCagg** 6'2" 188cm 170lb. 77kg,
7 **Katie Scanlon**, Stroke **Amy Fuller** 6'2" 188cm 181lb. 82kg,
Coxswain **Yaz Farooq**

Fingers-to-toes commitment is obvious. However, note the differing knee heights.
These four athletes flattened their legs at 60%, 70%, 80% and 90% of the pullthrough respectively.

"There was *always* an ideal power curve. It was like a **bell-shaped curve**, kind of. We had the equipment, and we used it *a lot*, frequently . . . frequently, and every time we got measured, there was one power curve that came up exactly as he wanted, and it was Jen Dore's.

"Every time we did it, *every time*, it was like, 'Here we go. This is what I want. It's not necessarily just area under the curve I'm looking at. I'm looking at the *shape* of the curve."⁷⁵²⁴

The challenge for Hartmut was that no one else in the 1993 eight rowed quite like Jen Dore in the 3-seat. At 6'2" 188cm 165-170lb. 75-77kg, the 1993 Rutgers graduate had the longest legs on the squad, but she

did not aggressively drive them flat like many of her teammates did.

Was this due to the observable difference in morphology? I think not. To a larger extent than anyone else on the team, Dore's legs and back were working concurrently from entry to release in the manner of the German Democratic Republic.

Under Buschbacher, the 1993 team as a whole tended to row a **hybrid-concurrent pullthrough** beginning with a strong effort of the legs and back but with the legs definitely dominating. For most, the arms were alive,⁷⁵²⁵ but due to the strength of the initial effort, they did not begin to break appreciably until the second half. The

1990s and U.S. Women's Coach during the 2000s.

⁷⁵²⁴ Fuller Kearney, op cit.

⁷⁵²⁵ not Jen Dore, however.

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FISA 1993 Video

1993 United States Women's Coxless-Four

World Silver Medal, Račice

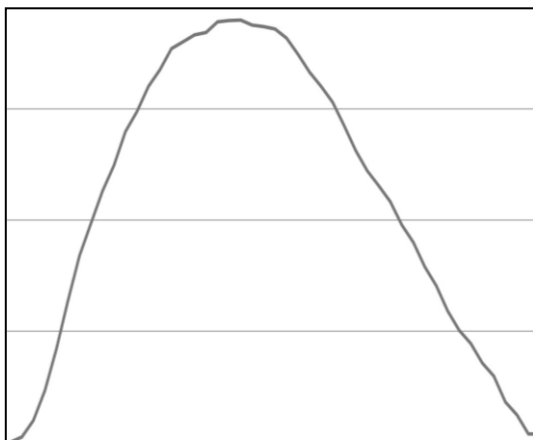
1 CHN 6:42.06, 2 USA 6:42.72, 3 CAN 6:43.32, 4 GER 6:46.07, 5 ROM 6:48.04, 6 AUS 6:53.81

Bow **Melissa Iverson**, 2 **Anne Kakela** 5'8" 172cm 150lb. 68kg,

3 **Amy Fuller** 6'2" 188cm 181lb. 82kg, Stroke **Katie Scanlon**
 0°, +35° to -20°, motion: 0-7, 0-9, 5-10, Modern Orthodox Technique

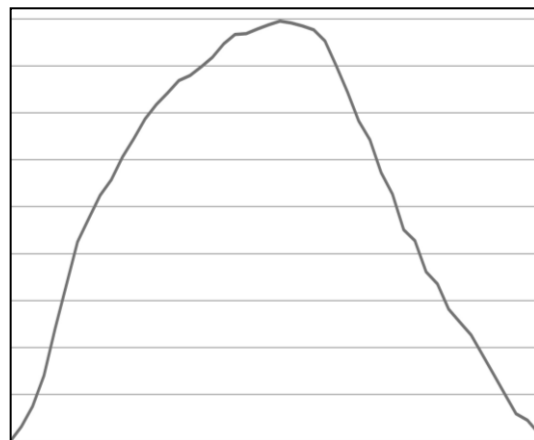
Hybrid-concurrent *Kernschlag*, late arm break.

Differences in leg drive were a bit less in the four than in the eight.



Author

Annie Kakela
 Very mild *Kernschlag*
 Left-leaning parabola



Author

Amy Fuller
Schubschlag
 Concave second half

pullthrough was affirmatively completed
 with a slight ferryman's finish.

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However, there was a significant divergence of approach in the 1993 eight in the *relative* dominance of the leg drive over the back swing.

On the one extreme was **Jen Dore** in 3, who took virtually the entire pullthrough to drive her legs flat. Closest to her was **Amy Fuller** in stroke, whose legs went flat at 90% of the pullthrough.

Fuller: “I know there was an evolution in the way that I rowed because of the ideal power curve that we all were always trying to get. We all tried to emulate it.”⁷⁵²⁶

University of New Hampshire graduate **Katie Scanlon** in 7 followed Fuller at 80%. Generally leg motion which is spread over between 80% and 100% of the pullthrough is associated with *Schubschlag* force application, i.e. Buschbacher’s preferred symmetrical GDR “bell-shape curve.” Legs going down any faster tend to indicate *Kernschlag*.

The rest of the ‘93 eight drove their legs down *quite* fast, Wisconsin grad **Melissa Iverson**, UCLA grad **Cat Fallon** and **Mary McCagg** at 70% and **Annie Kakela** and **Betsy McCagg** at 60%.

Kakela’s force curve on the previous page is an extremely fine example of a Modern Orthodox *Kernschlag* rower aspiring to follow Hartmut’s lead, while all that was lacking from Fuller’s curve was a more effective squeeze to the release to keep the curve convex. Curves such as Fuller’s tend to be associated with late arm draw. See Chapter 168.



FISA 1993 Video

1993 United States Women’s Coxless-Pair World Bronze Medal, Račice

Bow **Mary McCagg**, Stroke **Betsy McCagg**
1 **FRA** 7:24.74, 2 **AUS** 7:27.21, 3 **USA** 7:27.65,
4 **GBR** 7:31.71, 5 **GER** 7:39.20, 6 **NED** 7:46.05

Note the substantial difference in leg drive.

Tom Terhaar, Assistant U.S. Women’s Coach under Buschbacher from 1994 to 2000: “As an East German elite coach, Hartmut had won several World Championship and Olympic Medals, but unlike with the East Germans, leg drive became the number one focus on the U.S. women’s team under Hartmut!

“Maybe he was doing what he felt he had to do. You can have an ideal of how they *should* row, but if most of the athletes aren’t going to get it, then you’re better off going with what you’ve got.”⁷⁵²⁷

Buschbacher: “I would say it’s quite difficult for you to understand what you go through coming from one system to another. You got to use your system to your advantage, whatever system you have.”⁷⁵²⁸

⁷⁵²⁶ Fuller Kearney, op cit.

⁷⁵²⁷ Terhaar, personal conversation, 2004

⁷⁵²⁸ Buschbacher, personal conversation, 2011

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FISA 1994 Video

1994 United States Women's Coxless-Four

World Silver Medal, Eagle Creek

Stroke **Monica Tranel-Michini** 6'0" 183cm 165lb. 75kg, 3 **Cat Fallon** 6'1" 185cm 170lb. 77kg,
2 **Amy Fuller** 6'2" 188cm 181lb. 82kg, Bow **Anne Kakela** 5'8" 172cm 150lb. 68kg
0°, +35° to -20°, 0-6, 0-9, 5-10, *Kernschlag*

Modern Orthodox hybrid-concurrent

Legs were going down more-or-less evenly, but they were faster than in 1993

Terhaar: "U.S. National coaches just don't have enough time. We don't get athletes with small boat experience. We don't get athletes with a lot of feel [for the boat]. It hasn't been developed because they haven't had the time or the experience.

"Legs, back, arms. In America, it's been an easy starting point if you're just trying to teach the basics."⁷⁵²⁹

Račice

Any lack of uniformity in leg drive was on nobody's mind as the 1993 World Championships got under way in Račice, Czech Republic.

The McCagg twins were no strangers to the **coxless-pair**, having won the U.S. Junior Championship in 1985 for Lakeside School in Seattle. Known for their athleticism, they rowed an effective and very personal style,

maintaining a strong third place down the course behind Great Britain and the leading French crew, winners at Lucerne. The McCaggs sprinted hard at 40+ as the British faded, but Australia, 1992 Junior World Champions, came up and nipped them for Silver. A splendid and very creditable performance from the two sisters who had begun their international careers as alternates in 1989 and rowed in the U.S. Eights in 1991 and 1992.

In the **coxless-four** race, the American four spurted ahead of the field at the start, settled to 38, overstroking the other crews, and maintained a narrow lead almost to the 1,500 meter mark.

Kakela: "We were young. 'Okay, let's just go for it!' There was no strategy in our racing whatsoever."⁷⁵³⁰

During the last 500, China, coached by none other than **Kris Korzeniowski**,⁷⁵³¹

⁷⁵²⁹ Terhaar, op. cit.

⁷⁵³⁰ Kakela, op. cit.

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FISA 1994 Video

1994 United States Women's Eight
 World Silver Medal, Eagle Creek
 Stroke **Amy Fuller**, 7 **Katie Scanlon**
 0°, +35° to -20°, 0-6, 0-9, 5-10, *Kernschlag*
 Legs were much more aggressive than in 1993,
 especially here in the eight.

drove through using a lighter load, much in the manner of the Norwegian doubles⁷⁵³² of Thor Nilsen, Korzeniowski's mentor. The U.S. crew of '92 Olympian Amy Fuller and three National Team novices, including Kakela, won the Silver, holding off the Canadians.

The U.S. **Eight** also led for 1,500 meters before being easily outsprinted by Romania. The Americans' spirit and effort were clearly visible from bow to stroke. They gave it their all down the course and just did not yet have another gear for the last 250. Another year or two of Hartmut's training would surely fix that.

What a wonderful start of the buildup to Atlanta!

1994

By 1994, even though the members of the priority coxless-four also rowed in the eight, they tended to row with more aggressive leg drive in the larger boat. Whether or not this was a conscious decision, there has been a widespread belief in the United States that it is necessary to apply power not just more quickly but more forcefully in eights.⁷⁵³³

It also seemed that the team as a whole was moving steadily toward ever more assertive leg drive, though everyone I have spoken to agrees that this was never discussed and presumably was not intended by Buschbacher.

Fuller: "As we got older, I don't remember Hartmut ever saying, 'Now we're going to row like *this*.'"⁷⁵³⁴

⁷⁵³¹ See Chapter 124.

⁷⁵³² See Chapter 123.

⁷⁵³³ See Chapters 108, 113 and 148, for example.

⁷⁵³⁴ Fuller Kearney, op cit.

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Nevertheless, if majority force application had been a smooth *Schubschlag* or even *Kernschlag* in 1993, it was inching ever closer to segmented force application, at least in the eight, in 1994.

The race for the priority coxless-four on Eagle Creek Reservoir in Indianapolis in 1994 was superficially similar to the race in 1993. The crew again took the lead immediately but settled low to a 34½, letting the boat glide between strokes in the tailwind and looking very much less hurried than the previous year. However, their lead on the field never grew much beyond half a length.

The Americans maintained that lead past the 1,500 when the Dutch, another boat coached by the globe-trotting **Kris Korzeniowski**, began their sprint ten strokes earlier than them and went by to win by a deck. It was Korzeniowski's second consecutive Gold in the event for two different countries, and it was America's and Buschbacher's *fourth* consecutive Silver in the event behind three different countries.

Frustratingly, the '93 and '94 Eights had also won Silver. Two years out of Dartmouth College, Annie Kakela had four Silver Medals, and the veteran Amy Fuller had five!

The '95 World Champion Eight

The 1994 FISA regatta in Indianapolis had been the first World Championships ever held in the United States, and after such encouraging results in 1993, settling for the Silver Medal in both the women's four and eight on home soil must have left a bitter taste in everyone's mouth.

By '95, the 1996 Atlanta Olympics were fast approaching. Every single member of the latest U.S. Eight was already a World Silver Medalist, boasting twenty-six individual FISA Medals amongst them, so the desire to break through to the top of the

podium in Tampere had to have been almost unbearable.

The athletes surely felt it. The coaches surely felt it. The U.S. Rowing Association felt it.

The only personnel change from the 1994 eight had been the return of **Mary McCagg** after a year in the coxless-pair. Every member of the superb 1994 coxless-four was back, and in 1995 they would be focusing on the eight alone, the women's coxless-four having just been removed from the Olympic program.

The results in Tampere were fantastic: Silver in the pair, Gold in the four and Gold in the eight.

Kakela, in the eight for the third consecutive year: "I remember rowing up to the line, and it was sort of laughable because the water conditions were *so* bad, but we all kept our heads in the boat in terms of what we'd been working on and what our goal was, which was to really make a statement. And it happened.

"It definitely was one of those experiences where we felt prepared. I felt rested going into it. I felt mentally and physically *completely* ready to go for it.

"I just remember that race being completely in control from start to finish, every stroke. The only thing that I was thinking in my mind was, 'Stay clean. Don't catch a crab,' but otherwise, in terms of the race, I mean if you take the conditions out of it, as an eight I felt that we were very much well rehearsed for what we had to do, and it felt *great!*

"That summer, '95, we had *not* been consistent in all of our racing, like in Lucerne we had not raced well, but we had been *very* consistent in training and in timed stuff that we had done going up to Worlds.

"We just *knew* that if we were even in the hunt passing the first 500, we *owned* the middle 1,000. That's what we had been

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training for, power in the weight room, erg scores, stuff like that.

“We definitely knew that we were a strong crew, and that gave us the confidence in Tampere when we were right there or

even up a little bit in the first 500. We just kept pushing and kept pushing and kept pushing.”⁷⁵³⁵

⁷⁵³⁵ Kakela, op cit.

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FISA 1995 Video

1995 United States Women's Eight

World Champion, Lake Kaukajärvi

Bow **Anne Kakela** 5'8" 172cm 150lb. 68kg, 2 **Mary McCagg** 6'2" 188cm 170lb. 77kg,
3 **Laurel Korholz** 6'2" 187cm 170lb. 77kg, 4 **Monica Tranel-Michini** 6'0" 183cm 165lb. 75kg,
5 **Betsy McCagg** 6'2" 188cm 176lb. 80kg, 6 **Catriona Fallon** 6'1" 185cm 170lb. 77kg,
7 **Amy Fuller** 6'2" 188cm 181lb. 82kg, Stroke **Jen Dore**, 6'2" 188cm 165lb. 75kg,
Coxswain **Yaz Farook**

With Dore and Fuller in the stern pair, the 1995 eight was swinging well, especially before the water got really rough in the middle of the course. But note the discrepancies in leg drive, especially in Photo 3.

Definitely rowing explosive *Kernschlag*, Kakela, Korholz and Betsy McCagg drove their legs down by **60%** of the pullthrough. The legs of Mary McCagg were down by **70%**, Michini and Fallon by **80%**, Fuller by **90%** and Dore by the time she began her ferryman's finish.

The race was textbook, a quarter length at 500, half at the 1,000, three-quarters at 1,500 and hold off Romania, who closed to

two-thirds of a length by the finish line, all in dreadful cross-headwind conditions.

After five years, Buschbacher's U.S. program had reached the top of the

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international heap, but already there were cracks beginning to show in the foundation.

The 1995 U.S. Eight had finally won their World Championship on Lake Kaukejärvi in Tampere, Finland, but their technique had continued to move away from the Jen Dore ideal in the year of training since Indianapolis. Into a strong headwind, for the first time at least three members of the crew were clearly exploding the front half of the pullthrough.

Kakela: “Concerning ‘95, I do know that our technique probably looked very different, but the conditions that we were racing in were horrible!”⁷⁵³⁶

University of California grad **Laurel Korholz**, who rowed 5-seat in 1994 and 3 in 1995: “I remember training with Hartmut, and I just put my blade in the water and pulled my butt off, trained my butt off, pulled my butt off, trained my butt off. That’s all I did, and when things went badly, I pulled harder.

“I had no idea. Part of it was youth, and part of it was that I just didn’t have natural boat feel.”⁷⁵³⁷

Terhaar: “A lot of emphasis was being put on ergometer scores and performance in the weight room. I think that was something Hartmut was comfortable with from East Germany.”⁷⁵³⁸

The U.S. dominated the eight in Tampere, leading from wire to wire, but the evolution in technique did not bode well for the future. This was yet another recurrence of **Rowing History’s Greatest Lesson**. As you train ever harder, it is so easy to morph from *Schubschlag* or smooth *Kernschlag* to segmented *Kernschlag*, from one-part to two-part, and history has repeatedly demonstrated that the inevitable result is diminished speed.

⁷⁵³⁶ Kakela, op cit.

⁷⁵³⁷ Korholz, personal conversation, 2006

⁷⁵³⁸ Terhaar, op cit.

The World Champion Four

Shortly after the 1994 World Championships, the International Olympic Committee had decided to drop the women’s coxless-four from the Olympic program in favor of the women’s lightweight double, and that had completely changed the priorities for Hartmut’s 1995 team.

No longer would the top four athletes compete in the four and then jump into the eight. The eight became the sole priority boat, and the four and pair would be formed from athletes who had failed to make the eight.

Curiously, in ‘95 the most effortless-looking American rowing by far was being done in the four, made up of athletes who had not performed well enough in Buschbacher’s eyes to make the eight.

The 1995 U.S. Four seemed to echo the loping rhythm of the ‘94 U.S. Four. In addition, they had a long sweeping arc of their backs, similar to that of **Kucharski and Sycz**.⁷⁵³⁹

Lianne Nelson, stroke of the 1995 U.S. Four, a product of Lakeside School and Green Lake Crew in Seattle and a 1995 graduate of Princeton: “I was this college undergraduate who had never trained full-time, who was doing well but whose erg was *terrible!* I think Hartmut was really conflicted.”⁷⁵⁴⁰

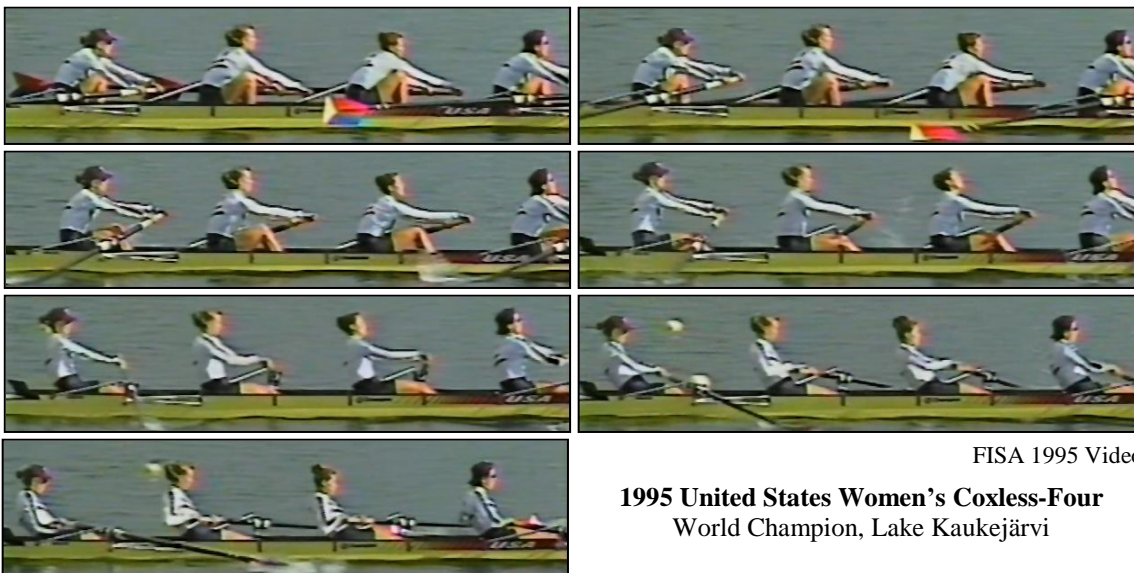
Kakela: “Lianne was stroking the boat. She has a very long, smooth stroke, *very* different from the eight.

“**Katie Scanlon** was right behind her, and she had been in the eight in ‘93 and ‘94, but she’s a very adaptable rower. We all had spent quite a bit of time in pairs and stuff like that, and Katie and the others had the ability to blend with anybody. So bringing in Lianne, who had a very *different*

⁷⁵³⁹ See Chapters 134 and 146.

⁷⁵⁴⁰ Nelson, personal conversation, 2005

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FISA 1995 Video

1995 United States Women's Coxless-Four
World Champion, Lake Kaukejärvi

Bow **Melissa Iverson**, 2 **Cindy Brooks**,
3 **Katie Scanlon**, Stroke **Lianne Nelson** 5'10" 177cm 150lb. 68kg
0°, +35° to -35°, 0-8, 0-9, 0-10, GDR concurrent *Schubschlag*, ferryman's finish
The rower to watch in this boat was **Lianne Nelson**, who would later stroke two Olympic Eights.
Her technique was similar to the 1998-2004 **Polish Lightweight Double**.

rhythm, would have dramatically changed that boat.

"Why weren't these girls in the eight? It was simple. Lianne wasn't winning her seat races that year to make it into the eight. Neither was Katie.

"But **Katie Scanlon** was *phenomenal!* In '93, she was one of the best of us up-and-comers on the team, and that year she stroked the four and rowed 7 in the eight. In '94 she didn't make the four, but she was *very* much in the eight . . . but she quit and worked in a coffee shop for a number of months. Then she came back, but in '95 her fitness level never quite caught up. Hartmut wasn't going to put her in all the top pairs during seat racing because she hadn't earned it.

"**Cindy Brooks** I don't know very well. She kind of came down and trained for a little bit. She was much older. She would come down, and then she'd leave, come down, and then she'd leave. She didn't seem as invested or committed.

"With **Melissa Iverson**, it was just timing. Melissa and I were beating all the big guns in pairs in '93, and then in '94 she broke her collarbone while biking. It was a nightmare, and she was out for a *long* time. She was just coming back in '95, but she never quite got back to that same level to push into the eight.

"Seriously. It wasn't that Hartmut had anything against those people or anything. It was just that they were overcoming different stuff, and they were behind the rest of us."⁷⁵⁴¹

Technique

While the 1995 Eight for the most part rowed hybrid-concurrent **Modern Orthodox Technique** and was being pushed from smooth towards segmented *Kernschlag*, at least in the rough conditions in

⁷⁵⁴¹ Kakela, op cit.

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Finland, the 1995 Four rowed concurrent *Schubschlag* **Classical Technique**. In contrast to the eight, legs in the 1995 coxless-four went down more steadily and concurrently with the backs as they described a long 70° arc, far beyond that of their teammates in the eight. The stern pair idiosyncratically raised their chins at mid-drive, but the consistent connection from fingers to toes was clearly evident in the bodies of all four athletes. However, the smoothness of their force application to a strong send at the finish almost gave the impression of effortlessness.

We discovered in Chapter 134 that the highly successful Canadian women of the 1990s were displaying a similar Classical *Schubschlag* Technique with long body swing under their coach, **Al Morrow**.

To the casual observer, the '95 Coxless-Four just didn't seem to fit in with the direction the rest of the team seemed to be going, and for the most part, these athletes would have dim futures with Hartmut.

Melissa Iverson, bow in the 1995 World Champion Coxless-Four after rowing bow in both the Silver Medal Four and Eight in '93, never rowed in a U.S. sweep boat again. She stroked the ninth-place quad in 1997.

Cindy Brooks in 2 had a similar fate in store. After her Gold in the 1995 Four, she was a spare in '96 and '98 and rowed bow in the eleventh-place 1999 Double.

Katie Scanlon in 3 made only one other U.S. Team. She rowed in 2 in the ninth-place American Quad in 1998.



FISA 1994 Video

United States Coxless-Pair
1994 World Sixth Place, Eagle Creek
Stroke **Mary McCagg**, Bow **Lianne Nelson**

Lianne Nelson

The only member of the 1995 World Champion four who turned out to have a successful future on the U.S. National Sweep Team turned out to be **Lianne Bennion Nelson**.

Nelson: "I first trained with the National Team in '93, and in '94 I made the Nations Cup⁷⁵⁴² Coxless-Four in Paris, and we won.

"There were just a few weeks before the deadline for the 1994 World Championships when I came back from the Nations Cup and started winning pieces. **Monica Michini** [6'0" 183cm165lb. 75kg] had been in the single, but when Hartmut put her in the eight, that bumped out Mary McCagg.

"**Mary and Elizabeth McCagg** had been in the U.S. Eight together since 1991. They were my heroes. In 1993, their eight

⁷⁵⁴² FISA Under-23 Championship

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got Silver, and Hartmut had them double up in the pair, and they got Bronze in that! They had never been separated before, but now Hartmut ordered Mary to row in the spare pair with me, and for the race pair he chose **Missy Schwen** and **Karen Kraft**, who were *very* good and won World Silver Medals the next two years.⁷⁵⁴³

“Well I said, ‘Wait a second. What’s this spare stuff? Why do we have to be the spares? The Trials haven’t happened yet. If we’re in a pair, then we can go to Trials.’”

“So we ended up winning the Trials, and I think Hartmut was pretty upset, like, ‘Who is this young kid, still in college?’”

“This was my pep talk at the 1994 World Championships: ‘Hang on,’ and then he turned to Mary and said, ‘If you don’t make the final, you’re cut.’”

“And I was thinking, ‘No pressure here! Welcome to the National Team.’”

“I had a great summer in 1994. It was a challenge for Mary, but we *did* make the final.”⁷⁵⁴⁴

Getting Along With Hartmut

Kakela: “Hartmut is a very intense guy. I like Hartmut a lot, and I really respect him. I think with us he was phenomenal at a number of different aspects of coaching, getting people very fit, making people tough, both physically and mentally.”

“For most of us it was kind of a love-hate relationship with Hartmut. Certain individuals got along with him quite well, like Amy Fuller and myself, and it was a relatively positive experience for us. For others it was a daily struggle, because of negative reinforcement and being tested and tested and tested and tested over and over again. If he didn’t trust an athlete, he’d test

them every day, and for those people it was a different experience.”⁷⁵⁴⁵

Nelson: “Hartmut’s really competitive, and I’m really competitive, and I think we both got to a point where we appreciated each other. The problem was that I have never been able to produce on the erg. I think he could see the ability I have, but he was frustrated that I just wasn’t strong enough.”

“But we could agree on that, so I didn’t hold any ill will towards him.”⁷⁵⁴⁶

1996

The goal ever since Buschbacher had come to the United States had been Gold in the eight at the Atlanta Olympics, and the pressure mounted as the date grew closer.

Kakela: “We had gone to Australia early in like the January – February time frame. Then we went back to our base in Chattanooga, Tennessee and down to Gainesville, Georgia a couple of times to do pieces on the Olympic course.”⁷⁵⁴⁷

Time Magazine, describing the routine in Chattanooga: “Buschbacher has them on a crushing workout schedule. Seven days a week they get to the boathouse at 7 for a morning practice that lasts until around noon, with one short break. For a few hours in the afternoon, the women return home to eat and sleep. Then they are back by 4 for a two-hour session. When they are grounded by the weather, they use the hated ergometers, or rowing machines. Their goal at night is to make it into the double digits – that is, to stay awake until 10.”

“‘They’re probably not in the best mood,’ Buschbacher acknowledges.”

⁷⁵⁴³ They were inducted into the National Rowing Foundation Hall of Fame in 2010.

⁷⁵⁴⁴ Nelson, op cit.

⁷⁵⁴⁵ Kakela, op cit.

⁷⁵⁴⁶ Nelson, op cit.

⁷⁵⁴⁷ Kakela, op cit.

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In the 1994 four, the effort at the catch had been carried through to the finish with no breaks. Beginning in the 1995 eight, the initial hit became a “pop-and-go” singularity which required a second effort to complete the pullthrough. Unfortunately, this distinction is invisible in still photos.

‘They’re training all the time. Training, training, training. It gets boring.’⁷⁵⁴⁸

Kakela: “We went over to Europe for a couple weeks to do Lucerne [They won.], came back and I think went to Elkhart, Indiana straightaway and spent three or four weeks there. Then we went to Oak Ridge, Tennessee for a few days and then went someplace right outside of Atlanta to train right before the Olympics, and then into Opening Ceremonies.”⁷⁵⁴⁹

Lianne Nelson fought to the last day of selection for a spot in the 1996 Olympic Eight. She didn’t make it. The boat ended up unchanged from 1995 with the exception of Michini and Fallon exchanging seats in the middle of the boat, but the brutal pressure of endless selection had bonded the crew to a remarkable extent.

Mary McCagg: “We’re like sisters now, and we all trust each other implicitly about everything.”⁷⁵⁵⁰

Time Magazine: “It should be noted, however, that these ‘sisters’ are also world-class competitors, that to win their places in the boat they spent months competing against one another in pairs, that most of them are more than 6 ft. tall and weigh upwards of 160 lbs.”⁷⁵⁵¹

Fuller: “Hartmut had very high expectations in the ‘96 quadrennial. I am closer with that group of athletes than any other group because we worked *hard!* The Annie Kakelas, Betsy and Mary McCagg, Monica, Cat, Jen Dore, Laurel Korholz, Yaz. We were a tight knit group because we were all in, every single day, *all in!*”⁷⁵⁵²

⁷⁵⁴⁸ Elizabeth Gleick, *8 Live Crew*, *Time Magazine*, June 28, 1996

⁷⁵⁴⁹ Kakela, op cit.

⁷⁵⁵⁰ Gleick, op cit.

⁷⁵⁵¹ Ibid.

⁷⁵⁵² Fuller Kearney, op cit.

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FISA 1994 Video

Anne Kakela
1994 Coxless-Four
Silver Medal
Eagle Creek



FISA 1996 Video

Anne Kakela
1996 Eight
Fourth Place
Lake Lanier

Kakela was one of the most accomplished U.S. rowers of her era, with four Silvers and one Gold between 1993 and 1995. She was self-conscious that she was not one of the larger athletes on the squad and would lay back a bit further than the norm to match the length of her teammates.

1996 Technique

Most individuals who have rowed for any amount of time have experienced a boat that feels better on some days and worse on others. The distinction between smooth *Schubschlag*, smooth *Kernschlag* and segmented *Kernschlag* is actually a continuum, and when more than one of these approaches are represented in an eight, there can be an ebb and flow of influence. When an increasing number of individuals have evolved to the segmented-force extreme of explode, rebound and recommit, the boat can take on a split personality. When the boat is rowing steady state, it might swing and flow, but when the pressure and/or the tension rises, the pounders can start to dominate.

Kakela: “Leading up to the Olympics, we would have *great* pieces, *flying* pieces, and then we would be dog slow, and there was no explanation. There was nothing we could pinpoint, but when we got to Atlanta, we bobbed in the first part of the week in the heats and had to go to the reps, and when

we actually had to work in the reps to make it to the final, that just totally fed into our inconsistent training.”⁷⁵⁵³

At the 1996 Olympics, where pressure and tension were at their maximum, the amount of work they were doing down the course was clearly written on every face, but the boat was not responding in kind.

Fuller: “I don’t recall there ever being a shift in technique. The boat wasn’t going as fast as it should have, so obviously in some way it must have manifested itself technically on the water, but you have to remember that Hartmut coached the four in ‘95, and he coached the eight in ‘95. He coached *both* the Gold Medal-winning crews in ‘95, and it wasn’t like he said, ‘Okay, the four, you guys row a long, smooth, connected stroke, and the eight, you muscle it down the course.’”

“I don’t remember any actual change in what Hartmut’s ideal power curve was. I’m not saying there wasn’t evolution. Maybe it was the athletes. Maybe it was our body

⁷⁵⁵³ Kakela, op cit.

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FISA 1994 Video



FISA 1995 Video



FISA 1996 Video

Jennifer Dore

The photos above disclose a significant evolution in Dore's technique. Knee angles were about 100° in all cases, but in 1994 and 1995 the back angle had already reached -10°, while in 1996, the back angle was still only +15. Even in Dore, the model GDR rower on the squad, the coordination of leg drive and back swing had shifted toward the legs in the 1996 Olympic year.

types. The one consistent thing I remember was Jen Dore's power curve being the one to have."⁷⁵⁵⁴

But even Jen Dore was changing, albeit subtly. Her concurrent use of legs and back had favored the back between 1993 and 1995. By 1996, it became more even. There was increasing emphasis on the legs.

Kakela: "I would be interested in going back and looking through my journals to see what type of training we were doing just in those final weeks, if we were just pounding stuff out, if we were doing some swing rows, but my sense is that we were kind of pounding things out.

"I know that we didn't do much technical work, and I think our swing rows were really light because we were *so tired*. I also know that we did insane jumpie workouts on land that would again push us toward legs, then back, no real swing, just punch, punch, punch, punch, *every* stroke.

"I do feel we were much punchier, not as swinging, letting the boat run, kind of muscling it along a little bit. I think it's a combination of the technical, trying to go harder, and the mental stress.

"It's like, 'Oh, we *have* to rise to that next level.'"⁷⁵⁵⁵

Olympic spare **Lianne Nelson:** "There was a lot of emotional fatigue. The kinds of workouts that we were doing getting ready for Atlanta were just crazy, and people were crying and breaking down, and there were injuries."⁷⁵⁵⁶

Kakela: "I think Hartmut kind of used me as a barometer to measure how training was going because I was one of the smaller athletes. He would ask me periodically how I was doing, and he'd watch my weight and stuff like that.

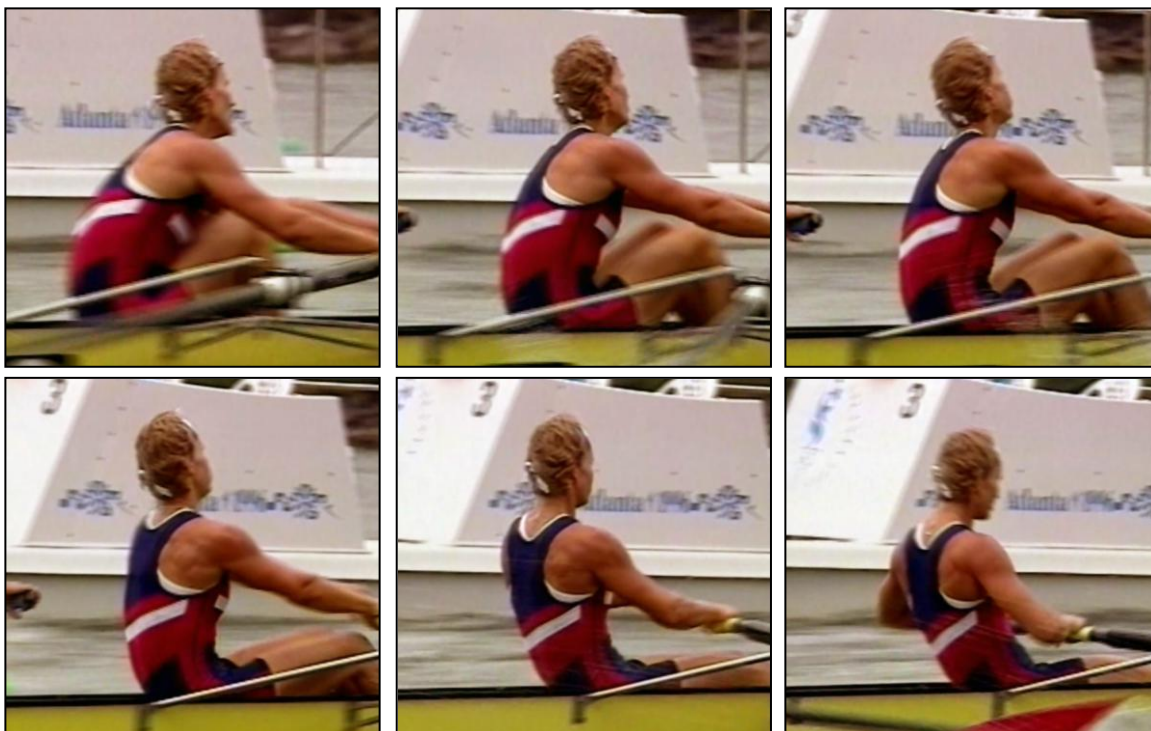
"I remember him asking me how I felt after one of our practice rows before we started racing, and I looked at him and said,

⁷⁵⁵⁴ Fuller Kearney, op cit.

⁷⁵⁵⁵ Kakela, op cit.

⁷⁵⁵⁶ Nelson, op cit.

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FISA 1996 Video

Jennifer Dore

0°, +30° to -20°, 0-10, 0-10, 5-10 Classical Technique
 Concurrent *Schubschlag*, ferryman's finish
 slight chin lift, late arm draw

The evolution in Dore's technique between 1993 and 1996 was probably subtle enough to have gone unnoticed by her teammates and coaches, even herself. The same idiosyncrasies remained, the chin lift, the right knee slightly lower than the left during the drive, the late arm draw, the strong squeeze to the ferryman's finish, but there developed ever more emphasis on legs in her leg-back concurrency.

'Hartmut, I feel kind of tired,' and he said, 'Well lady, there's nothing to be done now,' and I said, 'No, I know. It's time to race!'

The Race

In the Olympic final on Lake Lanier, from the very first stroke the U.S. was never a contender for Gold. Romania inched away from the field in the first 500 and broke it open in the second. During the first 1,000, the Americans seemed to struggle mightily

just to stay within a quarter-length of Belarus and level with Canada.

Daniel Topolski: "There's a lot of effort going into that American crew, but it's a lot of it displaced as well. They're throwing their bodies around, technically, throwing a lot of water up, bladework not very good. They seem to have lost a little bit of their focus in this last week when they got beaten early on in this regatta in the heats."⁷⁵⁵⁷

⁷⁵⁵⁷ Topolski, commentary, FISA 1996 Video

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FISA 1996 Video

1996 U.S. Women's Eight

Bow **Annie Kakela** (not visible), 2 **Mary McCagg**, 3 **Laurel Korholz**, 4 **Cat Fallon**,
5 **Betsy McCagg**, 6 **Monica Tranel-Michini**, 7 **Amy Fuller**, Stroke **Jen Dore** (shoulder visible)
Coxswain **Yaz Farook** (not visible)

The amount of work they were doing down the course was clearly written
on every face, but the boat was not responding in kind.

1 **ROM** 6:19.73, 2 **CAN** 6:24.05, 3 **BEL** 6:24.44, 4 **USA** 6:26.19, 5 **AUS** 6:30.10, 6 **NED** 6:31.11

The margins stayed the same during the third 500, Romania open water ahead of Belarus with Canada and the U.S. a tantalizing deck further back. Australia and the Netherlands trailed badly.

In the final sprint, Romania and Belarus remained one length apart while Canada shot forward to grab Silver. The United States lost three more seats on Belarus to miss a medal by a full half length.

It was so close . . . yet so very far away. There was none of the ease they had shown in challenging conditions just one year

earlier, none of the ease they had shown in Lucerne just a *month* earlier. The same nine women, and yet they looked like they were rowing in concrete.

The end result was crushing defeat. Hartmut didn't go down to meet them as they returned to the launch area.

Associated Press: "Crew members were silent as they headed back to the dock, and **Catriona Fallon** of Burlingame, Calif., said they didn't know what to say to each other.

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“I was just surprised we weren’t faster,’ she said after watching the women’s eight medal ceremony from an interview tent.

“I’m sorry we couldn’t pull it all together because I think these girls deserved to win a Gold Medal. I’m sure we’ll be feeling a sense of loss the next few months.’

“U.S. coach Hartmut Buschbacher said he didn’t know exactly what happened to a crew he trained for as many as six hours a day, six days a week for the past three and one-half years. No one was injured.

“The crew, heavily favored to win the first U.S. women’s Gold in a boycott-free Games, tried to sprint too early and finished without any medal at all as Canada and Belarus kept them out of the medals with strong finishes.

“The U.S. crew was fourth through the first 500 meters before pulling into third halfway through. They tried sprinting with 600 meters left but ran out of room [!].

“I think we just felt it was slipping,’ Buschbacher said. ‘There was nothing we were able to do and let it slip even more . . . We were actually in a worse place you can even think about, not being a medal.’

“The American crew had been confident that it was the strongest crew here thanks to its training. But Buschbacher, who coached the German Women’s Eight to Gold in 1988, denied that they were guilty of being overconfident.

“They didn’t race for six months, seven months and won at Lucerne, very impressive. We knew it would be difficult play in the Olympics,’ he said.”⁷⁵⁵⁸

Nelson: “Looking back, everyone was exhausted, but those women were *so fit* and they trained *so hard* that they didn’t get the reward they deserved.

⁷⁵⁵⁸ Teresa M. Walker, U.S. Rowing Women Fall Short of Gold, July 28, 1996, washingtonpost.com



Ted Nash Collection

“I was disappointed the ‘96 boat didn’t do better. I still to this day believe that I was training with the strongest, most fit women out there.

“Not only was I sad for them because they were my friends, but I was sad for Hartmut and the program because I thought we were better than that.”⁷⁵⁵⁹

Fuller: “It could have been the pressure. We were quibbling about things we shouldn’t have been quibbling about, and there was a bombing at the AT&T Olympic Park that our families were at in ‘96, for

⁷⁵⁵⁹ Nelson, op cit.

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goodness sake. There was stuff going on that there's no way you can measure. It's completely out of your control, but it controls something in your body, and part of performing at the highest level is *handling* that pressure.⁷⁵⁶⁰

Theories abounded.

Kakela: "To be honest, I have some ideas about what happened in '96, but because I retired after that, I never have really had to come to terms with it."⁷⁵⁶¹

www.nytimes.com: "The eight American rowers looked surprisingly more fit and larger than the Romanian victors, but once the gun went off, their superior brawn didn't translate into the winning performance they expected. Why? Olympic Champion and former crew coach at Mt. Holyoke, **Holly Metcalf**, had some answers.

"Her explanation for the crew's poor showing in Atlanta was that they were over-trained, flat, if not exhausted. They hadn't had enough time to recover.

"Buschbacher had probably put them on the same regimen that was successful with drugged athletes from the former DDR. (The main benefit of steroids is they allow the athlete to train much harder and more frequently than they could when clean.) Since the U.S. women's crew members didn't take drugs, the arduous training made them appear to be in great shape but had depleted their energy."⁷⁵⁶²



FISA 1996 Video

Yasmin Farooq
U.S. Coxswain 1989-1996

Bill Zack, one of Hartmut's assistants: "Depending on how one reads that last passage, it could imply that Hartmut knowingly participated in the performance enhancing drug program of the former DDR. To the best of my knowledge, Hartmut was not at all involved with that program, and in all the years that I have known him, he has always spoken strongly against the use of performance enhancing drugs."⁷⁵⁶³

And don't forget the historical perspective.

Beginning in 1964 with the Ratzeburg Eight, continuing in '68 with New Zealand, '72 with GDR and Ratzeburg again, '84 with New Zealand again, '88 with the American men, '92 with Germany and '96 with the American men again, the favorite, often the reigning World Champion, had come to the Olympics and failed to fulfill

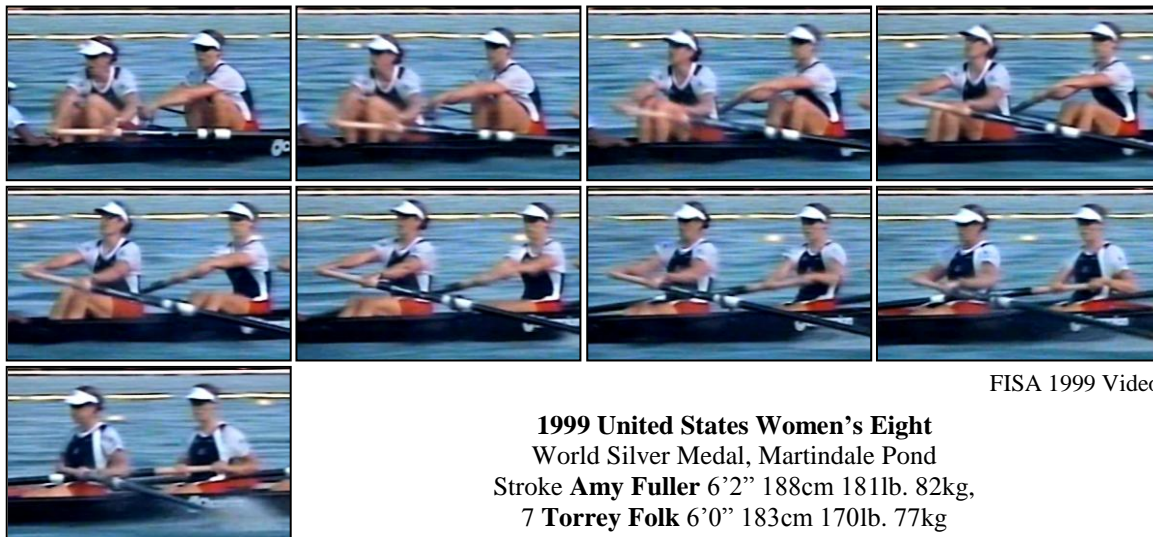
⁷⁵⁶⁰ Fuller Kearney, op cit.

⁷⁵⁶¹ Kakela, op cit.

⁷⁵⁶² Pat Connolly, The Journal, August 4, 1996, www.nytimes.com

⁷⁵⁶³ Zack, personal correspondence, 2010

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FISA 1999 Video

1999 United States Women's Eight

World Silver Medal, Martindale Pond

Stroke **Amy Fuller** 6'2" 188cm 181lb. 82kg,

7 **Torrey Folk** 6'0" 183cm 170lb. 77kg

+5°, +25° to -15°, 0-5, 0-5, 5-10 Modern Orthodox *Kernschlag*

their promise. There is a definite pattern here, and it will turn out to continue beyond 1996 to 2000, 2004 and 2008 for men from the Netherlands, Britain, the United States and Canada.

Buschbacher: "In sport, you always take the risk of failure. I don't want to take the experiences away leading up to the Olympics, which were great. We basically had one bad week out of four years preparation. Even in Lucerne we won, right before the Olympics. We came back inspired and tried to go faster than fast . . . so maybe that was a mistake.

"The athletes and coaches have to be careful not to be too hard on themselves. It is what it is. They got World Championship medals. They are World Champions."⁷⁵⁶⁴

Sydney Quadrennial

The squad rebounded after Atlanta and began its second Olympic Quadrennial under Hartmut Buschbacher leading up to Sydney in 2000. Several members of the 1995 World Champion squad were still around: **Elizabeth McCagg**, **Amy Fuller**,

⁷⁵⁶⁴ Buschbacher, personal conversation, 2011

Monica Michini, **Jen Dore**, **Laurel Korholz** and **Lianne Nelson**, several eventually returning after long sabbaticals.

After taking two years off, Lianne Nelson stroked the eight to another Silver in 1998. Reluctantly, Hartmut chose her to stroke the Olympic eight in 2000.

Buschbacher: "Terrible on weights, terrible on erg, but she beat everybody in single and pair, so I have to put her in the boat."⁷⁵⁶⁵

Fuller: "Hartmut had a very scientific approach, from my perspective, and you have human error in there and you try to put people in seats, but if he had really, truly believed that Lianne didn't deserve it, he wouldn't put her in the stroke seat of the eight in the Olympic year.

"The bottom line is I talked to Hartmut for hours as to who should stroke the boat in 2000 because I had stroked it in '99. I watched every single day in practice, Ultimately, Hartmut put Lianne in the stroke seat because he believed she was the best person for that spot.

⁷⁵⁶⁵ Qtd. by Steve Gladstone, personal conversation, 2000

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“There’s like this big mythical thing that Lianne was not strong. She was *incredibly* strong for her size. Lianne moved her way up. I saw her lose pair races. I saw her win pair races. I saw her do well on the erg. I saw her do badly on the erg. I saw everybody.

“I was in the trenches with these women. It was hard, hard work, and none of us performed beautifully every single time out. We all had our ups and downs, and how you rebound from the downs is what defines your career.

“I guess I get just a little wary of hearing these stories over and over again. Hartmut’s a really smart guy, and he put Lianne in the stroke seat of the eight in the Olympic year because he wanted us to win. *He* wanted to *win!* He would never have jeopardized that chance.”⁷⁵⁶⁶

Technique

The technique of the 1999 eight is especially instructive as to the state of the squad as they built toward Sydney. Body angle forward had been limited in order to increase leg compression at the entry. Commitment of the coordinated leg and back effort was complete and effective (Photos 2 through 7, previous page) until the legs were flat and the back had reached its limited layback position.

Unfortunately, with the legs and backs having completed their motions and the arm effort only just begun, the effort to move the boat had to come to an end right there, and the bodies settled back down on their seats with the handles still more than a foot away from the finish of the stroke, rendering the end of the pullthrough essentially useless in terms of boat moving. This is segmented-

force *Kernschlag* at its extreme, a parabolic curve with a kink and then a long tail.⁷⁵⁶⁷

Why would a GDR coach employ two-part *Kernschlag* forty years after GDR scientists had concluded that it didn’t work as well as a unified *Schubschlag*?

Tom Terhaar: “I realized that this was not the way the East Germans rowed. When I saw Hartmut rowing on the erg, I thought, ‘Geez, why don’t you just have them row the way *you* row?’

“Maybe he felt like that was what he was doing.”⁷⁵⁶⁸

Buschbacher in 2011: “You got to use whatever system you have, and I probably can say that more than anyone because I worked in East Germany, I worked in the U.S., I worked in China and I’m back in Germany, which obviously is totally different from the system we had in GDR.”⁷⁵⁶⁹

Sydney

Nelson: “I was ready for 2000, and it never, *ever* entered my mind that we wouldn’t medal. I thought we’d have to have the best race possible to beat Romania because they were in a league of their own back then, but with the times that we were getting, the preparation, I felt like we were totally ready!

“Then right before we left for Sydney, you could just tell the boat wasn’t moving. Hartmut waited a really long time to announce the team. We had like one week from when we found out we were officially on the team until we left for Sydney, and I just don’t think that was enough time. It’s pretty well documented that you go into a big hole and then you have to come back up.

⁷⁵⁶⁶ Fuller Kearney, op cit.

⁷⁵⁶⁷ an extreme evolution of Amy Fuller’s force curve earlier in this chapter. See also Chapter 168.

⁷⁵⁶⁸ Terhaar, op cit.

⁷⁵⁶⁹ Buschbacher, personal conversation, 2011

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FISA 2000 Video

2000 United States Women's Eight

Olympic Sixth Place, Penrith

Coxswain **Raj Shah**,

Stroke **Lianne Nelson** 5'10" 177cm 150lb. 68kg, 7 **Sarah Jones** 5'9" 175cm 154lb. 70kg,

6 **Amy Fuller** 6'2" 188cm 181lb. 82kg, 5 **Torrey Folk** 6'0" 183cm 170lb. 77kg,

4 **Betsy McCagg** 6'2" 188cm 176lb. 80kg, 3 **Amy Martin** 5'10" 178cm 181lb. 82kg,

2 **Linda Miller** 6'1" 185cm 161lb. 73kg, Bow **Katie Maloney** 6'0" 183cm 170lb. 77kg

"They told everyone, we packed our bags, did processing, got on the plane, and everyone got sick. We got to Sydney with strep throat running through the team. Everyone was so exhausted and so relieved to make the team that it was like, 'Okay, we can relax,' and then we were in a miserable environment, beautiful place but bad training environment in Yamba.⁷⁵⁷⁰

"And then self-doubt just came in, and technique went out. We weren't having good rows, and you couldn't feel the boat because we were on a river, and Hartmut started changing the boat.

"Okay, let's try oars, let's try different hull, let's do lineup changes.'

"I don't think I can point to one particular thing that went wrong. It was a combination of things. We didn't win in the heat, and I do think that each race was getting better, but if you look at the Olympic progression, everyone gets better."⁷⁵⁷¹

In Sydney as in Atlanta, the U.S. eight looked to be working harder but not getting

quite as much out of each stroke as the other crews beside them. The boat started even with the competitive field but was gradually losing ground from the first 250 meters. They crossed the line in last place, ten seconds behind the winning Romanians.

After the debacles in Atlanta and Sydney, USRowing replaced Buschbacher with his assistant, Tom Terhaar, as the new Olympic Quadrennial began.

None of the athletes blamed Hartmut for either Olympic letdown, 1996 or 2000.

Fuller: "The problem is that it's so dynamic. What works for one eight isn't going to work for another eight. If you can come up with an answer in your book, Peter, well . . .

"Unfortunately, there are a *lot* of ideas out there.

"Hartmut showed us the '84 Olympic eights race.⁷⁵⁷² **Kathy Keeler**⁷⁵⁷³ came and spoke with us. We had a few of those women come and speak to the team in both '96 and 2000.

⁷⁵⁷⁰ 600 km north of Sydney at the mouth of the Clarence River, not far from the boyhood home of Henry Searle. See Chapter 131.

⁷⁵⁷¹ Nelson, op cit.

⁷⁵⁷² See Chapter 148.

⁷⁵⁷³ Stroke of the 1984 Olympic Champion Eight. Ibid.

THE SPORT OF ROWING

“We *had* a sports psychologist in 2000, Jim Bowman from the Olympic Training Center. We met with him. We had these cards he made for us, these meetings, team building. This wasn’t an overlooked part of it. For whatever reason, it didn’t work.

“We trained in a place in Australia that was *so* beautiful, but they were burning the sugar cane fields, so it was also as smoky as you could possibly imagine. Was that part of it? Who knows? That’s why I have to go back to the human error part of it. I have to go back to taking *my* part of the responsibility.”⁷⁵⁷⁴

Buschbacher: “We did not win the Olympics, which was the foremost goal, which I think is too bad for the athletes.

“I truly loved working with them. They were all very committed. They bought into the system. They worked very hard, and I will always appreciate that.

“I still feel that the athletes did the best job they could.”⁷⁵⁷⁵

The Long-Term Impact of Hartmut Buschbacher

Fuller: “We all succeed or we all fail together, and that’s what’s hard about the history of the ‘90s to me. There were some *great* triumphs. I mean in ‘93 for a team that was such a baby to get two Silver Medals . . . and again in ‘94!

“I think that Hartmut changed the face of U.S. Rowing for women. I feel like he brought us to a whole new level of expectation. Not that they weren’t winning before . . . because they *were*, and not that they didn’t have great coaches before . . . because they *did*, but we committed ourselves to an Olympic experience full time year-round for four years.

“We all moved to Chattanooga, and we lived there for *four* years before Atlanta!

“Hartmut set the standard that women have *got* to be fit. When I think about the ‘91 and ‘92 years, there were so few women under seven minutes on the erg. In ‘92 in the four, **Cindy Eckert** [5’9” 175cm 146lb. 66kg] and **Shelagh Donohoe** [5’7” 170cm 148lb. 67kg] were *right* under 7:00, and **Carol Feeney** [5’11” 180cm 170lb. 77kg] and I in the mid-6:40s, but a *big* number of people were around seven minutes in that whole group in ‘91 and ‘92.

“By ‘96, I think we had three or four women in the 6:30s and another three or four women in the low 6:40s. He built that standard of expectation, and I think that is an important thing. The power of the women as a whole group grew in that time. ‘If *I’m* doing this, you better *also* be doing this!’ sort of thing. He played us off of each other all the time, and it worked.”⁷⁵⁷⁶

Amy Fuller had been World Ergometer Champion when Hartmut arrived. In preparation for Sydney, she regained the crown in 2000.

Fuller: “I don’t think that Hartmut *built* women’s rowing in this country. There were so many great rowers that came before us. Those women were our role models.

“But I do think that Hartmut *changed* women’s rowing in America forever in the 1990s.”⁷⁵⁷⁷

Bill Zack: “Hartmut was truly a head coach. Besides his leadership of the big sweep boats, he played a key role in the success of the scullers and the lightweights. He almost single-handedly developed the training center concept, first at Boston Rowing Center, then Chattanooga, and finally in Chula Vista.

“While never officially holding the title of National Technical Director, as Korzo did at one point, Hartmut had a profound effect on women’s rowing in the U.S., particularly amongst the college ranks. He made his

⁷⁵⁷⁴ Fuller Kearney, op cit.

⁷⁵⁷⁵ Buschbacher, personal conversation, 2011

⁷⁵⁷⁶ Fuller Kearney, op cit.

⁷⁵⁷⁷ Ibid.

THE ERA OF POLARIZATION



Waikato Times

Hartmut Buschbacher

thoughts on technique and training plans freely available to all. He made tons of visits to college programs, in search of talent but also in the quest to share his knowledge. His system of identification camps, freshmen camps, and long term development of athletes remains intact to this day.

“And he’d let any coach who wanted to put in the time help him out, learn from him, and assume higher positions within the national team system. I know that I personally would not be the coach that I am today without Hartmut’s mentorship and friendship.”⁷⁵⁷⁸

The years following Hartmut Buschbacher’s departure have been filled with Olympic success, Silver in 2004, Gold in 2008.

Hartmut’s successor, **Tom Terhaar** in 2004: “I want to make it *very* clear that our women wouldn’t have gotten that Silver Medal in Athens⁷⁵⁷⁹ if it were not for Hartmut Buschbacher during the 1990s. He laid the foundation, and he set the tone.”⁷⁵⁸⁰

“The most important things I use today I learned from Hartmut.”⁷⁵⁸¹

Tom and Jen Dore Terhaar live in Princeton with their two children.

Hartmut Buschbacher spent two years coaching in the People’s Republic of China before the Beijing Olympics. In 2008, he was named Men’s Head Coach of the German Rowing Federation. Germany won nine medals, including five Golds, at the 2010 World Championships.

Yaz Farooq is now Head Coach of Stanford University Women’s Rowing, U.S. Champions in 2009.

Amy Fuller Kearney is now Head Coach of UCLA Women’s Rowing. In 2010, she was named to the National Rowing Foundation Hall of Fame. In her acceptance speech, she sincerely thanked all her teammates and said she could never have accomplished what she did without Hartmut Buschbacher.

⁷⁵⁷⁸ Zack, op cit.

⁷⁵⁷⁹ See Chapter 157.

⁷⁵⁸⁰ Terhaar, op cit.

⁷⁵⁸¹ Terhaar, 2010 World Rowing Coaches Conference