



MASARU FURUKAWA

Throughout history, breaststroke has provided coaches and swimmers with an irresistible challenge to apply scientific principles to swimming. In the early 1930's, David Armbruster, the coach of Iowa, began filming underwater to analyze "stroke mechanics". He identified the drag caused by bringing the arms forward underwater for that part of the stroke known as "the recovery". Ultimately, this discovery led to the birth of breaststroke's offspring, the butterfly. In Japan, coach scientists realized through the study of hydrodynamics that breaking the surface of the water caused friction and that swimming totally underwater would be faster and no swimmer spent more time underwater than Masaru Furukawa.

Once butterfly became swimming's fourth stroke, after the 1952 Olympic Games, Masaru Furukawa so completely dominated World Breaststroke that the only way he could be beaten was by rewriting the rules and keeping the stroke

above water. His critics could never beat him and argued that the stroke had originally been a surface stroke and that the submarine version was dangerous, dull for the spectators and impossible to officiate. The only time they saw Furukawa was at the start, the finish and when he came up for a breath at the turns. Legislation finally beat the human submarine where competition had failed. After 10 World Records and an Olympic gold medal in the 200 meters, his career abruptly ended in 1957, after FINA rules prohibited underwater swimming.

Above water, Furukawa proved to be an ordinary mortal, but between the butterfly-breaststroke and the much slower modern (old fashioned) classic breaststroke, Furukawa dominated the stroke as no one else ever has. A much slower minimum standard was set and it wasn't until 1961 that Chet Jastremski, another innovator, finally broke Furukawa's times.