



International Swimming Hall of Fame

International Aquatic History
Symposium & Film Festival

The IAHSFF Book



Ft Lauderdale, Florida, USA, May 9-12, 2012



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Content page

Forward, 8

The International Swimming Hall of Fame, 9

Ambassadors' Messages, 10

Committees, 12

Participating Organizations, 13

Timetable, 15

Exhibitions, 17

“A ‘First Look’ Anniversary Celebration of Lifeguarding, Lifesaving and Water Safety in American 1880-1980s”, 18

Charles R. (Chuck) Kroll

“Synchronized Swimming: Historical Collection of Photos, Newspaper Articles and Costuming”, 19

Dawn Pawson Bean

Full Paper Presentations (O=oral presentation; P=poster presentation), 20

Facts, Legends and Myths on the Evolution of Resuscitation (O), 21

Stathis Avramidis

The ‘New Zealand Death’: Drowning in Nineteenth Century New Zealand (P), 32

Kevin Moran

James Bond and Swimming: The Books (P), 42

Murray Cox

Body, Mind and Spirit: The Representation of Swimming in Olympic Documentary Film (O), 50

†Elizabeth Emery

A History of the Lifesaving Foundation’s Ireland Medal and its Recipients (P), 51

John Connolly

A Historical Overview of the Lifesaving Foundation’s First Decade (P), 60

John Connolly

Polish History of Water Rescue (P), 70

Romuald Michniewicz, Iwona Michniewicz

Resistance, Persistence, Providence: Swimming Science, David Armbruster, and the Odyssey of the Butterfly Stroke (O), 74

Robert K. Barney, David E. Barney

O Brave New World of Super Suits: So Fast Even Phelps Didn't Know the Water was There (O), 94

David E. Barney

Enslaved Underwater Divers in the Atlantic World (O), 101

Kevin Dawson

Swimming, Surfing, and Underwater Diving in Atlantic Africa (O), 110

Kevin Dawson

"Having the Necessities": The Remarkable Story of the Dusable High School Team of Chicago, 1935-1952 (O), 119

Robert Pruter

The History and Problem of Swimming Education in Japan (P), 129

Atsunori Matsui, Toshiaki Goya, Hiroyasu Satake

Hawaii's Contribution to the Swimming World (O), 136

Richard "Sonny" Tanabe

A History of Olympic Pins and Badges and How Collecting Changed My Life" (O), 137

Craig R. Perlow

A Race of Swimmers: Native American Swimming Skills Before and after the Arrival of the Europeans" (O), 138

Bruce Wigo

The Design and Culture of American Pools: Before and After Integration Became the Law of the Land" (O), 163

Bruce Wigo

Book Presentations, 166

Swim: Why we Love the Water (2012), 167

Lynn Sherr

Fighting the Current: The Rise of American Women's Swimming, 1870-1926 (2011), 168

Lisa Bier

The Evolution of Freediving (2012), 170

Richard ("Sonny") Tanabe

Synchronized Swimming: An American History (2005), 171

Dawn Pawson Bean

The History of Aquatic Safety (2010), 172

Stathis Avramidis

Abstract Presentations (O=Oral presentation, P=Poster presentation), 173

Prints, Postcards, Posters, Photos, Pins and Patches: Collecting Swimming and other Aquatic Related Memorabilia (O), 174

Charles R. (Chuck) Kroll

A Historical Review of Synchronised Swimming and the Development of the Sport in Greece (P), 175

Ioanna Christodoulaki, Chrysoula Chairopoulou

Masters Swimming for Life – From the Beginning (O), 176

Barbara Dunbar, Robert E. Beach, John R. Spannuth, Meegan Wilson

A Historical Overview of Aquatic Therapeutic Uses in the Western Civilizations (P), 177

Zaharias Vlantis, Stathis Avramidis, Emmanouel Velonakis, Alkiviadis Vatopoulos

Hollywood Films: Truths and Myths in relation to Drowning and Lifesaving (O), 178

Stathis Avramidis

Aquatic and Lifesaving Related Messages that arise from Art (O), 179

Stathis Avramidis

Swimming and Aquatic Scenes in Hollywood Films: A Pilot Study (P), 180

Stathis Avramidis

Drowning and Rescue related Artwork from Swimming and other Aquatic with Religious Theme (P), 181

Stathis Avramidis

References to Drowning Incidents and Aquatic Rescues in Bible (P), 182

Stathis Avramidis

Martyrdom Drowning during the First Five Centuries of the Christian Orthodox Church (P), 183

Stathis Avramidis, Vassilios Giannakidis, Stavros Patrinos, Marina Petenioti, Eleftheria Avramidou

Art Depictions of Water Torture, Punishment and Homicide Drowning (P), 184

Stathis Avramidis

Suicide Drowning Episodes in Artwork Depictions (P), 185

Stathis Avramidis

Artwork of Swimming in Various Civilizations and Periods of History (P), 186

Stathis Avramidis

Artwork of Drownings and Rescues in Swimming and Aquatic Emergencies (P), 187

Stathis Avramidis

A Global Overview of Aquatics, Swimming and Drowning Myths and Legends (P), 188

Stathis Avramidis

Artwork Depicting Historical, Religious and Fictional Drowning Incidents due to Flooding (P), 189

Stathis Avramidis

Drowning Incidents and Aquatic Rescues Depicted in Artwork with a Military Theme (P), 190

Stathis Avramidis

Lifeguard Training Lessons from the Past (P), 191

Nancy B. White

The Royal Life Society – A Recipe for Rescue (P), 192

Janet Wilson

Bathing and Swimming by Design: Canadian Public Baths 1880-1924 (P), 193

Eileen O'Connor

Virtual Museum of Objects, Documents, Archives and Souvenir Material in Official Water Polo Competitions: The Story of a Private Collection (P), 194

Nikos Stavropoulos

An Overview of Landmark Events in the History of Water Polo: 1869-1992 (P), 195

Yannis Giannouris

Floating Memories: Brighton Swimming Club Archives 1860 – Present (P), 220

Paul Farrington

Cinematography, 221

Whitewash, 222

Ted Woods

Sync or Swim, 223

Cheryl Furjanic, Amanda Keropian

Back on Board Greg Louganis (Trailer), 224

Cheryl Furjanic

How to Teach Young Children to Swim, 225

Terje Stakset

On Drowning, 226

Francesco (Frank) Pia

A Public Service Announcement about Drowning, 227

Stathis Avramidis

The Mermaids' Club: A History of Synchronized Swimming, 228

Paul Carvalho

Ode to Lifesaving Joy, 229

Stathis Avramidis

Five Minute Scanning Strategy, 230

Tom Griffiths

Sylvie Frechette: Against All Odds, 231

Paul Carvalho

The Best Aquatic Stories of Bud Greenspan, 232

Nancy Beffa

50 Year Old FRESHMAN Suzanne Heim-Bowen, 233

Deborah Mc Donalds

Sunshine Olympics 1912, 234

Jens Lind

Parting the waters, 235

Josh Waletzky, Jenny Levison

The 200m Breaststroke in 1936, 236

Bruce Wigo

The Olga Dorfner Vase, 237

Bruce Wigo

The Tomb of the Diver, 238

Bruce Wigo

The Etruscan Tomb of Hunting and Fishing, 239

Bruce Wigo

Rice and Roses Presents Coach Sakamoto, 240

Chris Konybeare

Contributor's Index, 241

Forward

Dear colleagues,

We are delighted in welcoming you to the inaugural **“International Aquatic History Symposium & Film Festival”** (IAHSFF) of the **International Swimming Hall of Fame** (ISHOF). Sports history and historical events provide inspiration for the youth; a historical context for current rules; skills and the achievements of athletes; a platform for both documentary and feature films; for fictional and non-fiction literature and art –all of which serve to promote sport in the media and with the general public. Thus, the heritage of every sport is a fundamental component of its future and must be respected and preserved in a meaningful way. It is for this reason that the ISHOF and Museum was established in 1962, and to further this important mission, ISHOF is initiating the inaugural IAHSFF.

The book that you are now holding contains a diverse and interesting number of research and educational abstract submissions in the form of oral, poster, and film contributions, that will all be presented during the symposium and film festival. Several of these submissions reveal how aquatic sports and activities, as well as lifesaving and drowning have served as a mode of expression in artwork depictions, Hollywood films, memorabilia collections, literature and cinematography. Thus, IAHSFF has enabled, throughout the presentations, to reveal an underestimated dimension and neglected wealth of information that has arrived from points of view outside the mainstream research and understanding of aquatics.

Collectively, a small number of people worked towards making this event possible. All played an essential role for orchestrating the purpose of a professional symposium. The substances of the symposium were the submitted posters, papers and films by the contributors. Finally, delegates from 10 different nations (USA, Greece, New Zealand, Ireland, England, Norway, Japan, Poland, Australia, and Canada) registered to participate as contributors or attendees. This number represents a modest starting point and an initiative for an aquatics related perspective of history.

Your enthusiastic correspondence in terms of submissions and attendance, as well as the ISHOF’s aims to not only preserve aquatic history but also to serve as the destination where aquatic historians and enthusiasts will meet to exchange knowledge, is welcome and appreciated. We hope that this inaugural IAHSFF will landmark a tradition and initiate a series of many other similar symposia/film festivals in the future representing a wider range of themes to cover.

With aquatic greetings,



Stathis Avramidis, Ph.D.
IAHSFF Co-Chairman



Bob Duenkel, M.S.
IAHSFF Co-Chairman

The International Swimming Hall of Fame

The **International Swimming Hall of Fame** is a not-for-profit educational organization located in Fort-Lauderdale, Florida. Its mission is to promote the benefits and importance of swimming as a key to fitness, good health, quality of life, and the water safety of children. It accomplishes its goals through the operation of the ISHOF museum, a dynamic shrine dedicated to the history, memory, and recognition of the accomplished swimmers, divers, water polo players, synchronized swimmers, their coaches and lifesavers. Their lives and accomplishments serve to inspire and educate all of us.

ISHOF is the “Mecca of Aquatics” and international showplace for swimming, diving, water polo and synchronized swimming. The museum, library and archive contain the world's largest collection of aquatic memorabilia, and the single largest source of aquatic books, manuscripts and literature. As Olympic swimmer and “Tarzan”, Johnny Weissmuller said at the Hall of Fame's inaugural in 1965, *"I am happy and honored to be recognized among swimming's elite athletes. It is here where I will keep my swimming memorabilia, tell stories of my days in swimming and the movies and offer my services towards the pursuit of helping each youngster pursue their dreams."* Johnny did this until his death in 1984, but at the Hall of Fame, his spirit continues to live to inspire the youth of today, and to serve as a model for which young athletes can strive.



Ambassadors' messages

The “IAHSFF Ambassadors” are key personalities from all over the world, whose aim is to promote the values of the symposium/film festival in terms of aquatic history. The multidimensional nature of their work in the field of aquatics adds to the effort of preserving our international aquatic heritage in history and cinematography, and educates new generations. Here is what they said about IAHSFF.



“We were born in the water and a significant proportion of our body is water; 75% of our planet is covered by water and 95% of our body is constituted by water. This explains why the history of aquatics is a so intriguing theme for a symposium and a film festival. Let’s meet in the ‘*Mecca of Aquatics*’ to witness the extraordinary achievements that we have made from antiquity until today.”

Dr Stathis Avramidis
IAHSFF Co-Chairman



“Among the many purposes of the International Swimming Hall of Fame is to preserve the history of aquatics. This first-ever international symposium seeks writer’s and author’s submissions of papers or film for the purpose of “keeping alive” our rich heritage and to disseminate these writings around the world.”

Bob Duenkel
IAHSFF Co-Chairman



“We are initiating this symposium because we believe that the heritage of swimming is a fundamental component of its future and we want to be sure that today's generation learns to respect and appreciate those who have gone before them.”

Bruce Wigo
President/CEO
International Swimming Hall of Fame



“I commend the International Swimming Hall of Fame for supporting and hosting the first-ever *International Aquatic History Symposium Film Festival*. The history of aquatics as revealed in art and film is an area that deserves more study and attention. The Symposium will be an exciting event that I would encourage aquatic scholars and practitioners to attend.”

Professor Stephen Langendorfer
Bowling Green State University, USA
Editor, International Journal of Aquatic Research & Education



"My father introduced me to swimming when I was 2 years old. It became the social and professional fabric of my life. It seems only natural that my passion for swimming and the water would lead me to my first job as a Los Angeles County Beach Lifeguard. When I pursued a career in television I was encouraged to "write what you know," so I wrote about the heroes that patrol the beaches of Southern California. Swimming, the ocean and filmmaking have been the key elements that have shaped and molded me as a man and guided my life, so I was very excited when I heard the ISHOF was putting together this symposium."

Gregory J. Bonann

Creator/Director/Producer – "Baywatch"



"Today, most African Americans are inadequate swimmers and swimming is largely regarded as a "white" or "un-black" activity. The Center for Disease Controls recently reported that black Americans are at least 50% more likely to drown than white Americans, labeling the black drowning rate an epidemic. Ironically, the African Americans antecedents in both Africa and enslaved in America were proficient swimmers and historical sources reveal that they were routinely better swimmers than people of European descent. The historical study of swimming can be used to promote swimming in today's African-American Community."

Kevin Dawson, PhD

Associate Professor

Department of History, University of Nevada, Las Vegas

Committees

IAHSFF was operationalized by a number of individuals that served as members of the organizing and the scientific committee as well as the event team.

Organizing Committee

- ❖ **Stathis Avramidis**, Ph.D. IAHSFF Co-Chairman. Researcher at the Hellenic Centre for Disease Control and Prevention (Greece), Leeds Metropolitan University (UK) and The Lifesaving Foundation (Ireland). S.Avramidis@leedsmet.ac.uk
- ❖ **Bob Duenkel**, BA, MS IAHSFF Co-Chairman. Executive Director of the International Swimming Hall of Fame (USA). bduenkel@ishof.org
- ❖ **Bruce Wigo**, J.D. President/CEO International Swimming Hall of Fame. bwigo@ishof.org
- ❖ **Ivonne Schmid**, PhD. ISHOF Assistant to Executive Director. ischmid@ishof.org

Program Committee

- ❖ **Stathis Avramidis**
- ❖ **Bob Barney**, Ph.D. Professor Emeritus, School of Kinesiology (University of Western Ontario, Canada).
- ❖ **Robert K. Stallman**, Ph.D. Emeritus Associate Professor of Sport Science (Department of Physical Performance, Norwegian School of Sport Sciences, Norway); Trainer (Norwegian Life Saving Society, Norway).
- ❖ **Per-Ludvik Kjendlie**, Ph.D. Associate Professor (Vestfold University College, Norway); Associate Professor II (Department of Physical Performance, Norwegian School of Sport Sciences, Norway).
- ❖ **Kevin Moran**, Ph.D. Principal Lecturer in Health and Physical Education (University of Auckland, New Zealand).
- ❖ **Gregory J. Bonann**, Creator/Director/Producer “Baywatch”, Chief Judge of the IAHSFF Film Review Committee. Co-Founder of the foundation “A Chance for Children”.
- ❖ **Bob Duenkel**, Film Review Committee and Judging Panel Member.
- ❖ **Robert F. Dillon**, BA, MAT, MS. Educator and Swim Coach; Founder and Past President of a New Jersey Chapter of the United States Lifesaving Association; Member of the International Swimming Hall of Fame; IAHSFF Film Review Committee and Judging Panel Member.
- ❖ **Thomas Woyte**, BS. Writer and researcher of aquatic history, IAHSFF Film Review Committee and Judging Panel Member.

Event Team

- ❖ Laurie Marchwinski, Art Director, lauriem@ishof.org
- ❖ Marcia Meiners, Office Manager, marcia@ishof.org
- ❖ Jarret Streiner, Webmaster webmaster@ishof.org
- ❖ Eileen Malone, Archivist
- ❖ Marion Washburn, Librarian
- ❖ Roseann Gueli, Maintenance
- ❖ Lisa Ouwerkerk, Maintenance

Participating Organizations - Supporters

The **International Aquatic History Symposium & Film Festival** is supported by a number of academic and other professional institutions. The aims and objectives of IAHSFF, is to provide inspiration for the youth; a historical context for current rules, skills and the achievements of athletes; a platform for documentary and feature films, and for fictional and non-fiction literature and art. These aims and objectives correspond with the values of these organizations.



The **National School of Public Health** was founded in 1929 in Athens-Greece and operates under the Ministry of Health and the Ministry of Education. Its Department of Microbiology aims to promote public health through the operation of post graduate courses, and research activities in the fields of Microbiology, as Applied in Public Health. One of the fields of interest is water microbiology and hygiene. There is therefore a long tradition in teaching and research activities dealing with water for human consumption, recreation, and water in man-made environments.



The **Hellenic Centre for Disease Control and Prevention** was established in 1992 and operates under the Ministry of Health and Social Solidarity in Greece. Its aims are to protect and promote public health through the implementation of a national curriculum, public awareness, research, and scientific support, intervention in emergencies, as well as supervision and support of special populations. It achieves its goals through the cooperation with various ministries, universities, the World Health Organization, the European Centre for Disease Control and Prevention and other institutions.



The **Hellenic Federation of Underwater Activities and Sport Fishing** was founded in 1952 and was recognized as a “sport federation” by the General Secretariat of Sports in Greece. It is a founding member of CMAS. In Greece its aim is to promote the sports of scuba diving, underwater photography and sport fishing. It organizes national championships and participates in various events.



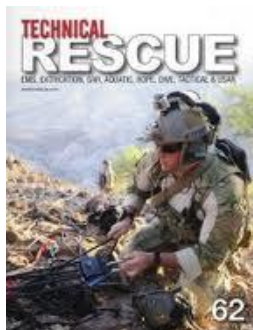
The main purposes for which **The Lifesaving Foundation** was established was to protect human life by the promotion of technical education in lifesaving, water safety and lifeguarding to the general public in Ireland and elsewhere. The Lifesaving Foundation is committed to developing activities and programmes to the highest standards to promote self rescue, rescue, resuscitation and first aid skills”.



The **Royal Life Saving Society** is dedicated to the prevention of drowning and is working to eliminate drowning in the Commonwealth. Its vision is to empower people and communities to prevent drowning, to engage youth through Lifesaving Sport, to support the drowning prevention mission, to contribute significantly and be a valued partner to drowning prevention, lifesaving and lifesaving sport and to contribute to the achievement of Commonwealth Priorities. Unlike other international organisations involved in drowning prevention, RLSS operates specifically among the Commonwealth nations. Our focus is on effecting change at the grassroots level to reduce drowning. In addition to this, Commonwealth Lifesaving provides a link to the Commonwealth network including, heads of government and the secretariat, as well as other international lifesaving and injury prevention partners.



The **International Journal of Aquatic Research and Education** is dedicated to advancing the knowledge and practices of aquatic professionals worldwide. This peer-reviewed quarterly journal publishes significant research findings; articulates unique and innovative ideas; challenges current practices and proposed changes; and disseminates information about the latest and best use of equipment and facilities.



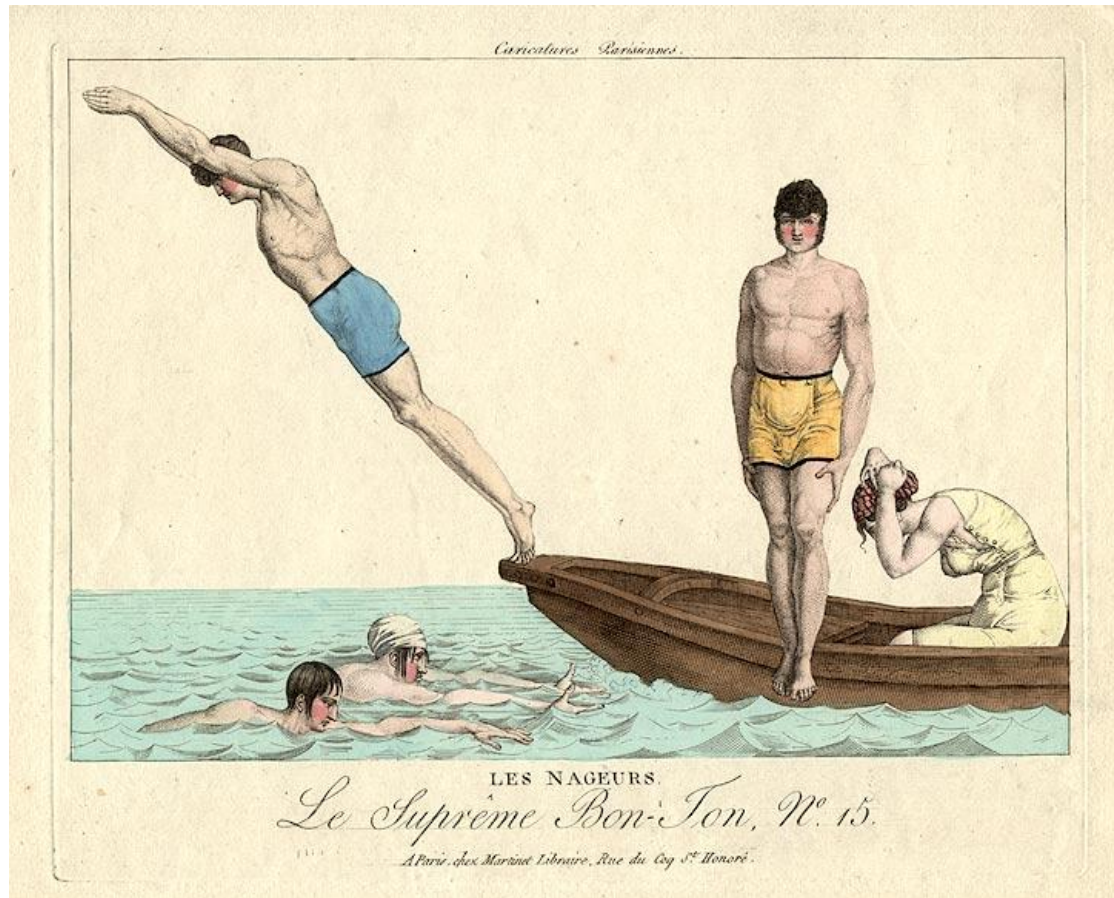
First published in 1993, **Technical Rescue magazine** was begun with enthusiasm and knowledge of what we as rescuers wanted to read. Now, TRm is the oldest specialist rescue publication in the world. Technical Rescue as a discipline, is of course a key activity for Fire Services & USAR teams, but is equally important to mountain rescue, cave rescue, swift water rescue, rope rescue and SAR teams, coastguard, police, military and industrial rescue teams. TRm always reflects Rescue as a multi agency discipline.

TIMETABLE

International Aquatic History Symposium & Film Festival 2012							
Date	Day	Time	Session	Lecture	Name	Topic	Place
9 May	1Wed	12:00-5:00pm	Registration				
		6:00-7:00pm	Welcome Reception		Staff	Welcome - Introductions	Auditorium
		7:15 - 9:00pm	Film Presentation	F1	Woods	Whitewash	Auditorium
		9:00 - 10:30pm	Film Presentation	F2	Lind	The Sunshine Olympics of 1912	Auditorium
10 May	2Thu	8:00-8:30am	Coffee				
		8:30-9:00am	Session 1	L1	Perlow	How collecting changed my life	Auditorium
		9:00-9:30am		L2	Avramidis	Aquatic and Lifesaving Messages of Art	Auditorium
		9:30-9:40am	Break				
		9:40-10:20am	Session 2	L3	Wigo	A Race of Swimmers	Auditorium
		10:20-11:10am	Break				
		11:10-12:00	Session 3	L4	Tanabe	Hawaii's Contribution to Swimming	Auditorium
		12:00-12:15pm	Break				
		12:15-1:50pm	Lunch-Keynote	K1	Dawson	Swimming in Africa	Auditorium
		1:50-2:00pm	Break				
		2:00-2:30pm	Session 4	L5	Barney	Development of Butterfly Stroke	Auditorium
			Film Presentation	F3	Wigo	The 200m Breaststroke in 1936	Auditorium
		2:30-2:40pm	Break				
		2:40-3:20pm	Session 5	L6	Bier	Fighting the Current	Auditorium
		15:20-15:30	Break				
		3:30-4:10pm	Session 6		Many Authors	Poster Presentations	Auditorium
		4:10-4:20pm	Break				
		4:20-5:00pm	Session 7	L7	Avramidis	History of Aquatic Safety	Auditorium
		5:00-7:30pm	Dinner Break				
		7:30-8:10pm	Session 8	L8	USMS	History of Masters Swimming	Auditorium
		8:15-9:30pm	Film Presentation	F4	Waletzky	Parting the Waters Trailer	Auditorium
		9:30-10:30pm	Film Presentation	F5	McDonald	50 year old FRESHMAN	Auditorium
11 May	3 Fri	8:00-8:30am	Coffee				
		8:30-9:10am	Session 9	L9	Kroll	Collecting Swimming Memorabilia	Auditorium
		9:10-9:20am		F6	Wigo	The Olga Dorfner Vase	
		9:20-9:30am	Break				
		9:30-10:20am	Session 10	L10	Avramidis	Evolution of Resuscitation	Auditorium
		10:20-10:30am	Break				
		10:30-11:10am	Session 11	L11	Barney	O Brave new world of supersuits	
		11:10 - 11:20am	Break				
		11:20 - 12:00am	Session 12	L12	Dawson	Enslaved Divers of the Atlantic World	Auditorium
		12:00-12:15pm	Break				

		12:15-1:45pm	Lunch-Keynote	K2	Pruter	Having the Necessities	Auditorium
		1:45-2:00pm	Award Presentation		Gadson	Sculpture & DuSable Pesentation	
		2:00-2:10pm	Break				
		2:10-2:50pm	Session 13	L13	Wigo	Design and Culture of American pools	Auditorium
		2:50-3:00pm	Break				
		3:00-3:50pm	Session 14		Wigo	Museum Tour	Auditorium
		3:50-4:00pm	Break				
		4:00-5:30pm	Session 15	L14	Anderson	Panel: Lessons for mass participation	Auditorium
		5:30-6:00pm	Break				
		6:00 -7:00pm				Paragon-ISHOF Reception	WestMuseum
		7:00-8:30pm				Paragon-ISHOF Awards	Auditorium
		8:30-8:45pm	Break				
		8:45-9:00pm	Film Presentation	F7	Furjanic	Back on Board Trailer	Auditorium
		9:00-10:00pm	Film Presentation	F8	Befa	Best of Bud Greenspan	Auditorium
12 May	4 Sat	8:00-8:30am	Coffee				
		8:30-9:00am	Session 16	L15	Avramidis	Hollywood Films and Lifesaving	Auditorium
		9:00-9:20am		F9	Avramidis	Ode to Lifesaving Joy	Auditorium
		9:20-9:30am	Break				
		9:30-10:20am	Session 17	L16	Tanabe	Evolution of Spearfishing	Auditorium
		10:20-11:10am	Break				
		11:10-12:00	Session 18		Furjanic	Sync or Swim	Auditorium
		12:00-12:15pm	Break				
		12:15-1:45pm	Lunch-Keynote	K3	Sheer	Swim: Why we love the water	Auditorium
		1:45-2:00pm	Break				
		2:10-3:00pm	Session 19	L17	Bean	Synchronized Swimming, An American History	
		3:30-3:40pm	Break				
		3:40-4:40pm	Session 20	F10	Carvallo	Sylvie Frechette	Auditorium
		4:40-5:40pm		F11	Carvallo	The Mermaids' Club	
		6:00-10:00pm				ISHOF Induction Reception and Dinner/ IAHSFF Awards	Con. Center

EXHIBITIONS



A “First Look” Anniversary Celebration of Lifeguarding, Lifesaving and Water Safety in American 1880s-1980s

Charles R. (Chuck) Kroll

Antique Aquatic Americana Collection ©/ Vintage Aquatic Design ©, USA

This past summer 2011, the Cape May, NJ Beach Patrol celebrated its 100th Anniversary. 2012 marks the 100th Anniversary of the organized Lifesaving instruction in the *YMCA*. It is also the 100th Anniversaries of the Jacksonville, FL Beach Patrol, the Stone Harbor, NJ Beach Patrol and my own City of Seattle, WA Lakefront/Beach Lifeguards. Two years hence, in 2014, the North Wildwood, NJ Beach Patrol and the Huntington Beach, CA Lifeguards will turn 100 & 50 years old respectfully. Two other very important Anniversaries to note in 2014, will be the 50th of the *United States Lifesaving Association* and the 100th of the *American Red Cross*. Thank you Commodore Wilbert Longfellow.

I began searching for Lifeguard and Lifesaving memorabilia in the fall winter of ‘1988-89. Since then I have acquired a unique collection with very rare items including pieces representing the United States Volunteer Life Saving Corp, The American Life Saving Society in addition to early American Red Cross & YMCA. The approximately 400 item collection includes prints, postcards, posters, photos, pins, patches, magazine covers, advertisements, rescue equipment, books, pamphlets, articles, cards and certifications, and entertainment including the film “Lifeguard” and the television show “Baywatch”. The exhibit will reflect the space limitations allowed and the financial resources available to exhibitor.

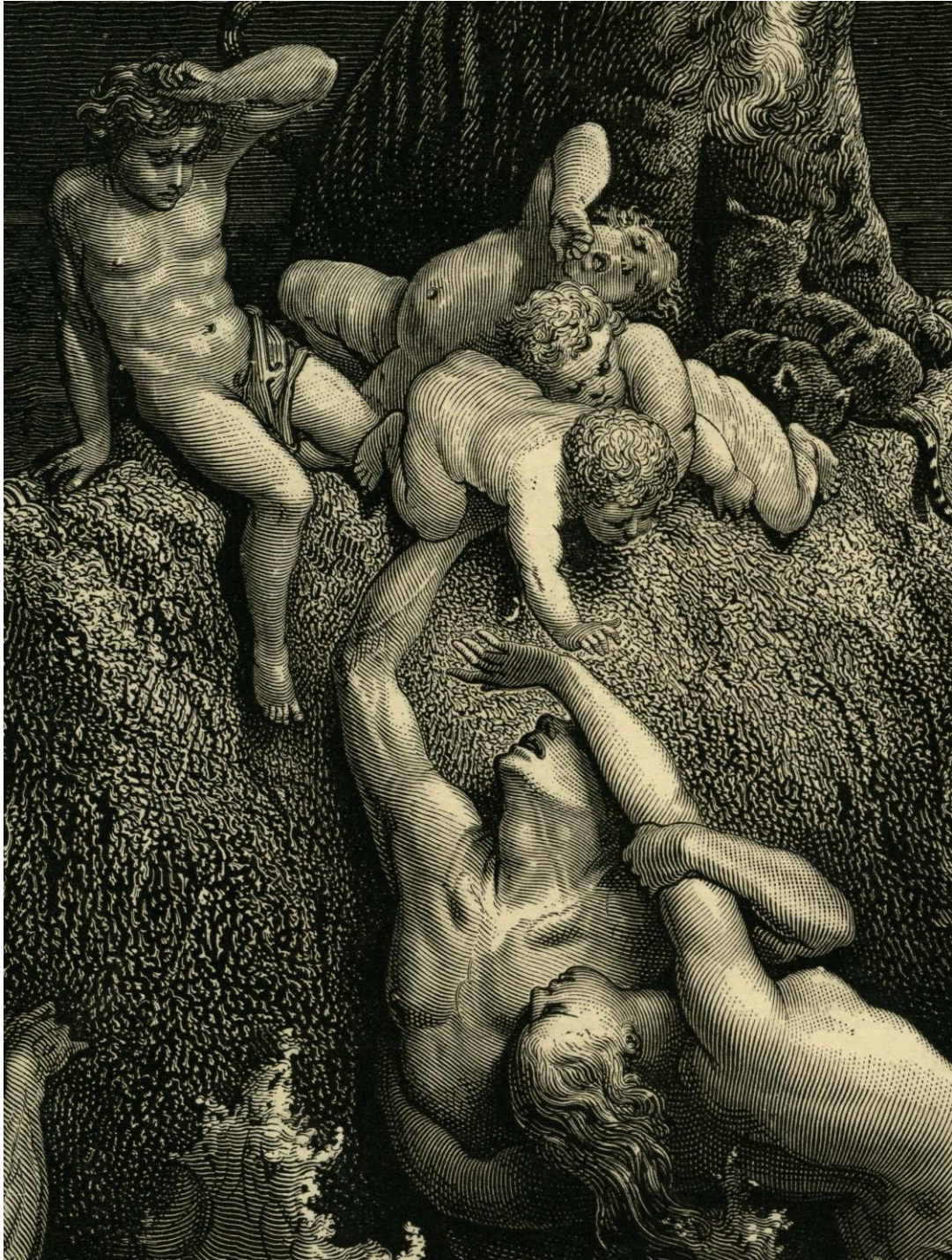
Synchronized Swimming: Historical Collection of Photos, Newspaper Articles and Costuming

Dawn Pawson Bean

United States Synchronized Swimming; Synchron Magazine (USA)

A collection of historical photos, newspaper articles and some costuming from the different style eras of synchronized swimming dating from the early 1940s to the present. Items include those from my personal collection, photos from my days as a swimmer, coach, and FINA judge through 1998 along with selected photos sent for possible inclusion in *Synchro* magazine, the magazine I edited and published from 1963-93 as well as photos sent for inclusion in my book *Synchronized Swimming: An American History*. (*Synchro* magazine was the first magazine in the world solely devoted to synchronized swimming and had circulation throughout the U.S. and in 67 nations when I ceded publication to U.S. Synchronized Swimming).

FULL PAPER PRESENTATIONS



Facts, Legends and Myths on the Evolution of Resuscitation

Stathis Avramidis

Hellenic Centre for Disease Control and Prevention (Greece); Leeds Metropolitan University (UK); The Lifesaving Foundation (Ireland)

Abstract

This study aimed to overview in chronological order a number of “facts” and “myths” that have been reported in the literature on the history of resuscitation. In particular, this review presents remarkable resuscitation attempts, innovative techniques and landmarked events that enhanced resuscitation in terms of science, history and intervention from ancient times until today. The resuscitation methods were designed for victims needing help in various locations of three-dimensional space, with emphasis on those occurring on, or brought to, land. These methods required single or double rescues to be carried out. Some of them were either empirically or scientifically designed. In some techniques, the stimuli used to revive the victim were rather painful and dangerous or at least disturbing. In some techniques, respiration was attempted with various more or less sophisticated devices. Finally, a small number of cases have been mistakenly reported by previous scholars as resuscitation attempts.

Keywords: drowning, cardio-pulmonary resuscitation, emergency, history, art, medical history, first aid.

Scholarly work about resuscitation is extensive on most aspects, but limited in historical references. More precisely, a related search in the data base, Medline, using as key words “resuscitation”, “cardio-pulmonary resuscitation” and other related terms, revealed several thousand published works that deal exclusively with this subject in terms of prevention, rescue and treatment. However, limited scholarly attention has been given to the historical route followed since the first reported resuscitation attempt. A similar search identified only a few publications that dealt with how resuscitation has evolved through the centuries.

Consideration of this lack of published evidence on the history of resuscitation raises several questions. Was the resuscitation of an apparently dead person always the same? Were resuscitation methods always scientifically established? How was resuscitation performed through the centuries? Was any equipment used during resuscitation attempts? Are there any facts and myths associated with the evolution of resuscitation internationally?

Answering these questions may be meaningful for a number of reasons. First of all, we will be able to overview the evolution of resuscitation and, therefore, know how techniques were developed through the centuries. Second, we will be able to identify whether any progress has been made in the thinking on medical and emergency response. Third, we will discover whether the development of resuscitation methods that aimed to save lives was an issue that has concerned scientists (e.g., doctors and researchers) and emergency professionals (e.g., lifeguards, rescuers etc) locally or internationally. Finally, such an overview will be interesting from a historical point of view, as we will be able to synthesize into a single study, and therefore witness the evolution of the most important aspects in first aid and emergency care. Therefore, the aim of the present study was to review the literature identifying various resuscitation methods that have been suggested and used from the past to the present, as well as to evaluate their content.

Resuscitation Attempts, Techniques and Landmark Events

In Biblical times, there is a myth about the Puah midwife applying external air ventilation (EAV). The Midrash Rabbah explained the origin of the name Puah. Rabbah, was a Biblical commentary written by a rabbi between 1900 and 1100 BC. Puah was a midwife mentioned in the book of Exodus. According to the text, she was given this name because she used to revive the newly born with her own breath (Exodus 1: 15–17). Some authors have reported this as evidence of the application of EAV on humans (e.g., Safar, 1989; Dworkin, 1999). However, a careful check of the verses in Exodus reveals that they were not about her applying EAV for newborn resuscitation (Trubuhovich, 2005). Therefore Puah could not be credited with knowledge of resuscitation.

In the year 896 BC, the myth arose about the first resuscitation attempt by the prophet Elisha. Some authors mistakenly attributed the first description of a successful resuscitation attempt to an episode reported in the Old Testament (see Safar, 1989; Vervaecke, 1995; Dworkin, 1999; Avramidis, 2010). According to the Bible (Genesis 2: 7, Kings 17: 17–22 and 4: 32–35), a child of a Shunemite couple had a headache and then died. The prophet Elisha prayed and then “... *placed himself over the child. He put his mouth on his mouth, his eyes on his eyes, and his hands on his hands, as he bent over him. And the body of the child became warm. He stepped down, walked once up and down the room, then mounted and bent over him. Thereupon the boy sneezed seven times, and the boy opened his eyes*” (Figure 1). However, this incident should be perceived only as a “miracle” because nothing in the text suggests that Elisha blew air into the child’s mouth. Moreover, the time taken for the prophet to save the child was far too long for EAV to be considered the cause of his recovery (Clayton-Jones, 1913; Trubuhovich, 2005). Therefore, the first resuscitation attempt has been mistakenly credited to the prophet Elisha.

In ancient times, the treatment of the King of Chyryba took place. The treatment of King Aleppo is one of the preserved ancient resuscitation stories (see Vervaecke, 1997; Avramidis, 2010). The King was thrown into the Orontes River by the furious Egyptian Pharaoh Ramses II and almost drowned. In the Rameseum at Thebe the gravures of the rescue treatment given to the King by his soldiers are depicted. They lifted their King by his feet, probably to drain the water out of his lungs (Bierens, 1996; Meursing, 2006; Figure 2).

During ancient times, in China an effort to revive drowning victims was made. In particular, a method was used in which the victim was positioned on his stomach on the back of an ox. Both of his arms hung down on one side, and both of his legs on the other. The rescuer held the victim in this position while he brought the ox to a gallop (Bierens, 1996; Meursing, 2006).

In 700 BC, the theory of Pneuma dominated medical thinking in Greece. The Pneuma theory was postulated by some Greek philosophers: during their last breath, a casualty’s Pneuma left their body, thereby achieving immortality. Based on this theory, drowning was considered to be particularly bad, since Galen postulated that during submersion, water obstructed the airway, preventing the Pneuma from leaving the body. Because of this, efforts were made to free the Pneuma after the victim was rescued (Meursing, 2006). Specifically, Hippocrates (460–370 BC) suggested in his work, Prognosticon, that a priest could blow the Pneuma back into the casualty’s body by inserting a tube into the trachea (Bierens, 1996; Meursing, 2006).

In about 200–500 AD, there is a myth that the Babylonian Talmud refers to human EAV. The Babylonian Talmud Shabbat 128b describes the EAV method. According to this “*one should hold the newly born in a way that it cannot fall and one blows one’s own exhaled air in the nose of the child*”. Some authors have reported this as evidence of the application of EAV on humans (e.g., Meursing, 2006). However, the newborn, which

here is referred to as a human (Rosen & Davidson, 1972), was actually a calf or a lamb (Trubuhovich, 2005).

In 1000 AD, the heat resuscitation method was suggested. Every time a casualty's respiratory and circulatory systems fail and metabolism stops, the temperature of the body cools. The rationale behind this method was that if hot ashes and coals were placed on the chest, this would re-start breathing and the heartbeat, and re-warm the casualty. When the casualty was asleep, resuscitation was successful. When the casualty's breathing and heartbeat had actually stopped, the resuscitation attempt was apparently futile (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 3).

In 1530 AD, the bellows resuscitation method was introduced. Although not many rescuers carried fireplace bellows while on duty, the success of this technique motivated first-aid manufacturers to design the bag-valve-mask resuscitators (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 4).

In 1555 AD, the experiments of Vesalius dominated the field. Andreas Vesalius (1514–1564) was the first person to describe mechanical ventilation (Wikipedia, 2011). In his animal experiments, he showed that ventilation was necessary for the heart to function adequately. He reported his experiments in his book, *De Fabrica Humana Corporis*, published in 1555. Since then several scientists have repeatedly proved that his findings were correct (see Vallejo-Manzur, Perkins, Varon & Baskett, 2003; Meursing, 2006; Wikipedia, 2011).

In 1670 AD, Albinus promotes resuscitation for those who are drowning. The Swiss priest, Sebastian Albinus, has been credited for probably being the first who actively promoted resuscitative techniques for drowning victims. He published a booklet in which he described several techniques for resuscitating the drowning victim. He learned some of these techniques from his parents who owned a watermill (Bierens, 1996; Meursing, 2006).

In 1711 AD, the fumigation resuscitation method was introduced. Smoke was blown into the casualty's rectum via an animal bladder. North American Indians and American colonists used it successfully for some time. In 1767, this "resuscitation" technique was introduced in England (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 5).

In 1732 AD, the application of EAV was suggested. Tossach, a Scottish surgeon, wrote about a rescue he performed: "*There was not the least pulse in either heart or arteries, and not the least breathing could be observed: so that he was in all appearance dead. I applied my mouth close to his, and exhaled as strong as I could: but having neglected to close his nostrils all the air came out of them. Wherefore taking hold of them with one hand, and holding my other on his breast, I blew again my breath as strong as I could, raising his chest fully with it; and immediately I felt six or seven quick beats of the heart*" (Meursing, 2006, p. 16).

In 1740 AD, the first law for drowning victims by King Louis XV of France was established. He first recognised the significance of the government and law in the rescue process and the treatment of drowning victims. He ordered Reaumur to circulate in France a publication that explained how to save a drowning victim. At the same time, the law was changed. As a result, the rescue of a drowning victim was no longer a punishable action (Meursing, 2006).

In 1744 AD, the first article on mouth-to-mouth resuscitation in an adult victim was published by William Tossach. Twenty three years later, in 1767 AD, the Society to Rescue People from Drowning was established in Amsterdam with three objectives. The first was to reduce the fear associated with dealing with a drowning casualty. The second was to conduct scientific research. The third was to train the public in the best way possible, so that they were able to rescue drowning casualties. In addition, for

preventative reasons, billboards were placed in the harbour cities of the Netherlands describing the most helpful techniques (Meursing, 2006).

In 1770 AD, the inversion resuscitation method was introduced. Stanchions were placed on beaches. When a casualty was pulled out of the water, the rescuer would tie the casualty's ankles together and attach the victim to the stanchion where he would be alternately raised and lowered in an effort to push air in and out of his chest cavity (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 6).

In 1773 AD, the barrel-roll method was established. With this method, in use in Europe in the Middle Ages, the victim was put on his stomach on the barrel. The rescuer grabbed both feet and rolled the victim to and fro using the barrel. With our current knowledge, it seems likely that the changes in intrathoracic and intra-abdominal pressures that occurred caused the circulation to be re-established (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 7).

In 1774 AD, William Cullen made an important statement. During this period, scientists started realising that signs of death were not always irreversible. In particular, William Cullen (1712–1790), professor at Edinburgh and Glasgow, said that “*death is only irreversible after the neurons have died*” (Meursing, 2006).

1787–8 AD saw the “Ancestor” of the defibrillator. Charles Kite (1768–1811) developed an instrument that was similar to the modern defibrillator. He used a so-called bottle of Leiden which he charged with an electrification machine. He connected the capacitor to two copper poles with two cables. The poles were placed across the thorax of the patient with two wooden handles, in such a way that the capacitor would give an electrical charge to the thorax (Meursing, 2006).

In 1775 AD, Squires made the first recorded defibrillation. Evidence of this is recorded in the Annals of the Royal Humane Society that describes the first use of this machine during the resuscitation of Sophia Greenhill. Mr Squires, who worked as a surgeon at the Middlesex Hospital, London, administered several successful shocks to her (Meursing, 2006).

In 1780 AD, the first endotracheal intubation was introduced. Based on this, bellows were used to ventilate the patient via the endotracheal route. Although the role of oxygen in human metabolism was clarified by Priestly, Scheele and Lavoisier, these remarkable ventilation techniques were, unfortunately, neglected for several decades because of the complications involved in their application (Meursing, 2006).

In 1803 AD, the Russian resuscitation method of cooling was established. This method could be initiated easiest in cold climates. Its aim was to reduce the body's metabolism by cooling it under an icy layer of snow. However, the body part that needed to be frozen was the brain that was left outside the ice (Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 8).

In 1812 AD, the trotting horse resuscitation method was introduced. When a casualty was rescued and taken out of the sea, the rescuer would hoist the casualty onto the horse and run the horse up and down the beach. This led to an alternate compression and relaxation of the chest cavity because of the bouncing of the casualty on the horse. This procedure was banned in the USA because there were complaints by citizens who cared about the “cleanliness” of beaches (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 9).

In 1829 AD, d’Etiolles triggered changes in resuscitation methods. Jean Jacques Leroy d’Etiolles (1798–1860) published an article that demonstrated the potential hazards of positive pressure ventilation. He demonstrated that forceful ventilation with bellows could lead to pneumothorax and that if this was continued, to death. This particular work made physicians believe that the lungs of a victim of sudden death could not bear positive pressure ventilation. Eight years later, in 1837, the Royal Humane Society

removed bellows and mouth-to-mouth ventilation from the list of recommended techniques. Alternatively, as a result, various others techniques for artificial ventilation were established based on the same principle: the use of normal ventilation. Having about 100 push-and-pull techniques were too many, and this made the Royal Humane Society allocate a task force to evaluate them to find out which ones were positively tested and should eventually be used (Meursing, 2006).

In 1831 AD, the Dalrymple resuscitation method was suggested. Two rescuers placed fabric under a casualty's armpits and pulled the fabric towards themselves (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 10).

In 1847 AD, Van Hasselt introduced a new method. This method was called "Costal Elevation Method". The casualty was placed in the prone position. The rescuer placed his fingertips behind the false ribs and forcefully lifted the ribcage, to stimulate inspiration. Then, by releasing the ribcage, expiration was forced (see Bierens, 1996).

In 1856 AD, the Marshall Hall resuscitation method was applied to those in need. The chest is elevated and the casualty is immediately pulled up on his side. Then he is rolled back. The applied pressure on the back generates exhalation. The pressure is released when the person is on his side, for inhalation (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 11).

In 1858 AD, the Sylvester resuscitation method was used. This method consisted of two moves. The rescuer holds the wrists of the casualty who is placed in a supine position and presses his chest to cause passive exhalation of air from the lungs. Then, he pulls the wrists out and up to stretch the hands, to inflate the lungs with the entry of new air (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 12).

In 1871 AD, Van Howard introduced a resuscitation method that was named after him. The casualty was positioned on his back and a pillow was placed under his shoulders. The back was pushed to force out the gastric content and water from the lungs. The casualty's back was hyper-extended because of the pillow. His wrists were placed on the ground (inhalation). His thorax was compressed progressively on the six lower ribs by the rescuer's body weight (exhalation). Inhalation was achieved with the sudden release of the pressure of the body weight. The tongue was pulled back (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 13).

In 1886 AD, the Van Francis resuscitation method was established. The casualty was placed in a supine position along the middle of a piece of wood and his arms were extended upwards. The two sides of the wood were raised alternately to stimulate inhalation and then lowered to stimulate exhalation (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 14).

In 1892 AD, the Van Lamborde resuscitation method was introduced. The rescuer pulls the casualty's tongue rhythmically to trigger the pharynx, the glossopharyngeal nerve and the upper pharynx that activate the respiratory centre and the medulla oblongata (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 15).

In 1894 AD, the Prochownick resuscitation method was introduced. The newborn infant is inverted. The squeezing of the chest by the rescuer and the pull of gravity cause exhalation. The release of the chest lets the lungs fill (Vervaecke, 1995; Avramidis, 2010; Figure 16).

In 1896 AD, the Van Brosse resuscitation method was applied to apparently dead people. The casualty is placed in a supine position with his back on a low footstool. The rescuer approaches the casualty from the rear, holds and raises the casualty's hands, thus achieving extension of the thorax (inhalation). Then he pushes the casualty's bent elbows onto the diaphragm (exhalation) (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 17).

In 1903 AD, the Schaffer resuscitation method was used. The casualty is placed in a supine position with his arms folded beneath his head. The head is turned to the side. The rescuer applies all his body weight onto the lower ribs of the victim by pushing downwards and inwards through his arms to force the diaphragm to move down (inhalation). Then the rescuer removes his arms from the thorax, so the thorax returns to its initial position (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 18).

In 1910 AD, the Boland resuscitation method was used. This method required the victim to be in a prone position. The rescuer knelt on the victim and pulled him upwards from his shoulders, by hyperextending his spine. This move stimulated the phase of inspiration. Then, the victim was dropped on the abdomen, supported by the head to stimulate expiration. This method was not without its disadvantages though; due to the increased risk of aspiration of the stomach contents it was only applied to young casualties. However, the advantage of the method was that the tongue could not block the airway (see Bierens, 1996).

In 1910 AD, the Flagellation resuscitation method was used. National resuscitation organisations used this method for determining the response of an unconscious casualty. The rescuers whipped the casualty in order to stimulate a response (Vervaecke, 1995; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 19).

In 1918 AD, the Steward resuscitation method was used. This is the first air-tide cabinet method. A chamber is connected to bellows and creates positive and negative pressure on the casualty's abdomen to inflate and then deflate the lungs (Dworkin, 1999; Avramidis, 2010; Figure 20).

In 1926 AD, the Eisenmenger resuscitation method was used. Air from an electrically-driven pump goes into pressure and suction vessels in a dome on the casualty's body and triggers breathing (Dworkin, 1999; Avramidis, 2010; Figure 21).

In 1931 AD, the Oesterreich resuscitation method was introduced. When a lineman suffers an electrical shock his abdomen is compressed inwards and upwards for exhalation. The release of this compression generates inhalation (Dworkin, 1999; Avramidis, 2010; Figure 22).

In 1932 AD, the Van Eve resuscitation method was suggested. The casualty is placed on a board with a stone as a fulcrum. This board acts like a seesaw, moving the casualty's head up and down and requiring minimum effort from the rescuer. The vital organs push the diaphragm causing inhalation or exhalation, depending on the position of the head (high or low) (Vervaecke, 1995; Avramidis, 2010; Figure 23).

In 1932 AD, the Holger-Nielsen resuscitation method was established. The victim is laid in a prone position. The rescuer places his palms on the casualty's shoulders. He moves until his hands are placed vertically above the casualty's body. He pushes the casualty to enable exhalation. Then, he moves back, reducing the pressure to assist exhalation (Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 24).

In 1937 AD, the cardio-pulmonary resuscitation method was established. The American Red Cross and the American Heart Association started a campaign aiming to educate the national public in basic life support and resuscitation procedures. The primary objective was to train public safety and rescue personnel. Once this training was achieved, it was then taken out to the general population. Later, it was made clear that cardio-pulmonary resuscitation would be effective if it was followed by Advanced Life Support attempts (e.g., intubation, drug administration and defibrillation) (Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 25).

In 1947 AD, the first defibrillator and the rediscovery of external cardiac massage were made. That year the first defibrillator for internal use was used successfully by Claude Beck, who has been known since then, as the "father of defibrillation" (Tsakiris,

2008). Twelve years later the external defibrillator was developed and used successfully by other scientists. As a result, mouth-to-mouth ventilation, chest compression and shocks were once again brought together, as in 1829 (Meursing, 2006). In the early 1960s, the idea of administering cardio-pulmonary resuscitation was brilliant and perceived as one of the biggest achievements of humanity. Characteristically, the US President, John F. Kennedy, in a speech, said that “*within the next 10 years, United States would send a person to the moon and also cardio-pulmonary resuscitation would save thousands of lives*” (Tsakiris, 2008, p. 24). In due course, the use of automatic external defibrillators became so simple that even non-medical emergency personnel could operate them.

In 1950 AD, the Emerson resuscitation method was established. The lifeguard places the casualty in a supine position on the ground. He applies pressure on the casualty’s waist with his hand (exhalation). Then he grabs and lifts the casualty up until the casualty’s body is lifted from the ground (Vervaecke, 1995; Avramidis, 2010; Figure 26).

In 1950 AD, the mouth-to-mouth resuscitation method was introduced. A number of organisations started a promotional effort to raise awareness in the USA public of this procedure that had been advocated within the United States army during World War II. A decade later, this training was adopted by lifeguard organisations that taught mouth-to-mouth resuscitation in the water during a drowning rescue, using various types of lifeguard equipment (e.g., rescue buoys, rescue boards, boats, canoes, etc.; Dworkin, 1999; Avramidis, 2006a; 2006b; 2010; Figure 27).

In 1958 AD, the “push-and-pull” was replaced by the “mouth-to-mouth” technique. The push-and-pull technique had a profound influence in the evolution of resuscitation. Patients with respiratory insufficiency due to a poliomyelitis virus infection were ventilated by a so-called iron lung. Around their neck a rubber seal guaranteed air-tight closure of the iron lung and only their head was sticking out of the iron lung. Air was squeezed out or sucked into them by varying the air pressure inside the “lung”. However, during the polio epidemic of 1949, many iron lungs underperformed; when they broke down, because the head was the only accessible part of the patient’s body, the hospital staff had to administer either mouth-to-mouth ventilation or bag-mask ventilation. Three years later, J.O. Elam, an anaesthesiologist, discovered that these alternative techniques were effective in maintaining adequate blood gases. However, this was only published several years later. In 1958, the American National Red Cross, the National Academy of Sciences and the National Research Council, jointly advised that the mouth-to-mouth technique should replace the push-and-pull technique (Meursing, 2006).

In 1990 AD, the chain of survival is suggested as a teaching and intervention tool for lifesaving and first aid organisations. The American Heart Association developed the concept of the chain of survival in an effort to educate health care and rescue professionals and the general public, in the related procedures. This chain comprised four steps: early access to the emergency medical system by telephone, upon recognition of a patient’s cardiac arrest; early basic life support through cardio-pulmonary resuscitation; early defibrillation by first responders; and, finally, early advanced life support by advanced trained emergency responders (Dworkin, 1999; Avramidis, 2001; Lee & Avramidis, 2008; Figure 28).

In 1996 AD, emphasis was given to early defibrillation. Guidelines from the American Heart Association stated that “all emergency personnel (like lifesavers and lifeguards) should be trained and permitted to operate an appropriately maintained defibrillator if their professional activities require that they respond to persons experiencing cardiac arrest” (Dworkin, 1995).

From 2000 AD until today, systematic resuscitation updates take place. Every four years the International Liaison Committee on Resuscitation produces revised guidelines and resuscitation protocols taking into account the results of scientific research (e.g., Handley, Monsieurs & Bossaert, 2001; Handley, Monsieurs, Perkins, Davies & Bossaert, 2005; Nolan et al, 2010). This initiative, together with the rapid development of the media has resulted in the spread of existing knowledge and the sharing of information about resuscitation techniques. Consequently, this allowed organisations to adopt the new techniques, significantly decreasing the number of drowning deaths by reviving those needing resuscitation.



Figures 1-28: Pictorial depiction of the evolution of resuscitation. Note. Images drawn by Nikos Kouremenos. Copyrighted and reproduced with permission from Avramidis, 1998; 2001; 2010.

Discussion

This review of the literature aimed to locate those resuscitation methods that have been suggested and used for reviving apparently dead people, as well as remarkable landmark events, and to clarify myths related to the history of resuscitation. As a result, several methods were found. A careful study of them reveals several findings that are discussed below.

The first finding was that resuscitation methods were designed for victims needing help in various locations of three-dimensional space, with emphasis on those occurring on, or brought to, land. Specifically, some techniques were applied to those in need of resuscitation in the air, or took place off the ground (e.g., the inversion method, the Prochownick method and the Oesterrreich method). One was applied to those needing resuscitation in the water (e.g., ventilation in the water). Finally, the majority of the suggested and used techniques were applied to victims on land (e.g., cardio-pulmonary resuscitation, the Sylvester method, the Holger Nielsen method, the Van Eve method, etc.). The message that we get from this observation is that although the emergency situations occurring on land were the subject of extensive effort, for those situations occurring in the air or in water, the attention of organisations dealing with them and possible solutions were limited.

A second finding was that all the resuscitation methods described required either one or two rescuers for their administration. More specifically, only a few methods required the intervention of two rescuers (e.g., the rummage and shaking method, the Van Francis, Van Lamborde method, the Dalrymple method). On the other hand, most methods needed a single rescuer (e.g., Holger Nielsen, Silvester, Van Howard, etc.). This observation gives the impression that in most cases, regardless of the time frame in human history (i.e., ancient, medieval or contemporary) or the nature of techniques (i.e., empirically or scientifically designed), their application was not difficult. It only needed the presence of a trained rescuer with limited “equipment”.

In addition to the above, this review discovered that resuscitation methods were either empirically or scientifically designed. Those developed in the past were characterised by the imagination of their “inventors” (e.g., fumigation, bellows, barrel method, inversion, etc.). On the other hand, resuscitation methods that were used in the most recent decades were established as a result of scientific evidence (e.g., Holger Nielsen, Silvester, mouth-to-mouth, cardio-pulmonary resuscitation and defibrillation). This demonstrates a movement away from pure empiricism towards a more scientific way of approaching the issues of emergencies and the treatment of those in need of first aid. More importantly, the dramatic higher survival rates that are reported in the contemporary injury epidemiology statistics, compared with the high mortality rates of the past, demonstrate the success of science to produce (even after a long delay over the centuries) a valid and successful way of treating unconscious and non-breathing victims.

Fourth, in some methods the stimuli needed to revive the victim were rather painful and dangerous, or at least disturbing. While most methods required a gentle intervention by the rescuer, there were several other methods that included, as part of the process, pain to trigger revival (e.g., the heat method, fumigation method, inversion method, barrel method, cooling method, trotting horse method and flagellation method). Consideration of these techniques gives the impression that when they were successful (either because they worked on actually non-breathing victims or because the victims seemed, but were not actually, dead), they must have been very painful or annoying. Moreover, one may wonder what may have happened in those cases where a person seemed to be lifeless and was treated by an inexperienced rescuer with the heat or the cooling method; those victims may have ended up with several burns or frost bite.

Fifth, in some techniques, respiration was attempted with various more or less sophisticated devices. Among the less sophisticated devices we noted the ones that were used in the early years of resuscitation history (e.g., barrels, bellows, horses, ropes, stool, woods, whip, etc.). However, during more recent years, a number of more sophisticated devices were also used (e.g., a first aid-tide cabinet in the Steward method, an electrically-driven pump in the Eisenmenger method and the automatic external defibrillation). This use of specific devices demonstrates a turn from an empirical approach, mainly based on

the imagination of the technique's founder, to a more intelligent design that was the result of scientific research.

Finally, it was found that a small number of reported cases have been mistakenly reported by previous scholars as resuscitation attempts. This was evident in the incident where the prophet Elisha revived an apparently dead child possibly by a miracle. Also, the Puah midwife was not intending to revive non-breathing infants. Finally, a careful observation of the text in the Babylonian Talmud revealed that the presumed attempt to resuscitate a human child, actually referred to a calf or a lamb. From all the above, it is concluded that often, some events occurring throughout history are mistakenly interpreted by scholars and credited to people who did something different from what was reported. This also underlines the importance of using multidisciplinary research approaches when drawing conclusions, especially in periods of history where insufficient information and evidence are available.

Summary

Probably since prehistory, human beings have been helping and rescuing each other in times of danger and threat. Later, in Biblical periods, "miraculous" attempts, that were mistakenly labeled as artificial exhaled air ventilation, were made to save apparently dead human and non-human victims. In ancient times, because death was considered to be a special form of sleep, early rescuers used painful stimuli to wake up the victim. Since then, several other empirical and more scientific methods have been implemented for establishing standardised protocols and to revive those seeking emergency help. Several different resuscitation methods have been used in the past. These techniques were designed to be administered either by one or two rescuers to those in need of help in various locations of three-dimensional space, with emphasis on those occurring on, or brought to, land. Some of them were characterised by their intelligent design and sophisticated instrumentation, while others appear amusing or brutal. In any case, they represent medical knowledge, or the current thinking of their period. Overall, it seems that while in the early years methods were based on experience and coincidence, later techniques and their protocols were developed based on valid and reliable scientific research.

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References

- Avramidis, S. (1998). *The Manual of the Greek lifeguard*. Athens: Stamoulis Publisher.
- Avramidis, S. (2001). *The specialized lifeguard*. Athens, Greece: European Lifeguard Academy.
- Avramidis, S. (2006a). History of resuscitation, part 1. *Underwater World*, 413, 50-52.
- Avramidis, S. (2006b). History of resuscitation, part 2. *Underwater World*, 419, 48-49.
- Avramidis, S. (2010). *History of aquatic safety- a multidisciplinary approach*. Athens, Greece: Author.
- Bierens, J. (1996). *Drowning in the Netherlands, pathophysiology, epidemiology, and clinical studies*. Netherlands, Utrecht, Universiteit Utrecht, Faculteit Geneesjunde.
- Clayton-Jones, O. (1913). To the editor. *The Lancet*, 4667, 413.
- Dworkin, G. (1999). Evolution of resuscitation. Retrieved on 18 October 2005 from www.lifesaving.com.
- Handley, A.J., Monsieurs, K.G. & Bossaert, L.L. (2001) European Resuscitation Council Guidelines 2000 for adult basic Life support. A statement from the Basic Life Support and Automated External Defibrillation Working Group (1) and approved by the Executive Committee of the European Resuscitation Council. *Resuscitation*, 48, 199-205.

- Handley, A.J., Monsieurs, K.G., Perkins, K.G.D., Davies, S. & Bossaert, L. (2005) European Resuscitation Council Guidelines for Resuscitation 2005. Section 2. Adult basic life support and use of automated external defibrillators. *Resuscitation*, 67, S1, S7-S23.
- Lee, D. & Avramidis, S. (2008). Chain of survival and protocol of automated external defibrillation. In: S. Avramidis (Ed.). *Handbook on Safety and Lifesaving* (pp. 302-303). Athens: Stamoulis Publisher.
- Meursing, B.J. (2006). The History of resuscitation. In: J. Bierens (Ed.). *Handbook on Drowning* (pp. 14-21). Germany: Springer.
- Nolan, J.P., Hazinski, M.F., Billi, J.E., Boettiger, B.W., Bossaert, L., de Caen, A.R., Deakin, C.D., Drajer, S., Eigel, B., Hickey, R.W., Jacobs, I., Kleinman, M.E., Kloeck, W., Koster, R.W., Lim, S.H., Mancini, M.E., Montgomery, W.H., Morley, P.T., Morrison, L.J., Nadkarni, V.M., O'Connor, R.E., Okada, K., Perlman, J.M., Sayre, M.R., Shuster, M., Soar, J., Sunde, K., Travers, A.H., Wyllie, J., Zideman, D. (2010). Part 1: executive summary: 2010 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations. *Resuscitation*, 81, e1-e 25.
- Rosen, Z., & Davidson, J.T. (1972). Respiratory resuscitation in ancient Hebrew sources. *Anesthesia and Analgesia*, 51, 502-505.
- Safar, P. (1989). History of cardiopulmonary-cerebral resuscitation. In: Kaye, W. Bircher N.G. (eds). Cardiopulmonary resuscitation. *Clinical Critical Care Medicine*, 16, 1-53.
- Trubuhovich, R.V. (2005). History of mouth-to-mouth rescue breathing. Part 1. *Critical Care Resuscitation*, 7, 250-257.
- Tsakiris, H.S. (2008). The History of defibrillation. In: S. Avramidis (Ed.). *Handbook on Safety and Lifesaving* (pp. 23-24). Athens: Stamoulis Publisher.
- Vallejo-Manzur, F., Perkins, Y., Varon, J., & Baskett, P. (2003). The resuscitation greats: Andreas Vesalius, the concept of an artificial airway. *Resuscitation*. 56, 3-7.
- Vervaecke, H. (1997). *Reddings-en reanimatie- technieken bij verdrinking*. Acco: Belgium.
- Wikimedia Commons (2011). Andreas Vesalius. Retrieved on 31 May 2011 from http://en.wikipedia.org/wiki/Andreas_Vesalius

The “New Zealand Death”: Drowning in Nineteenth Century New Zealand

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Abstract

In a land characterised by intractable bush and hilly terrain, early Polynesian and, more latterly, European settlement in New Zealand, tended to be located around coastal areas, along rivers, and on lake shores. With the arrival of British immigrants to New Zealand in the nineteenth century, drowning was such a commonplace problem that it was referred to throughout the British Empire as the “*New Zealand death*”. Early drowning rates in New Zealand were extremely high by modern standards, a reflection of: the new arrivals’ inability to swim; the type of clothing worn; the dependence on small craft as a means of conveyance; the dependence on waterways for navigation, and the lack of bridges and safe roads. Among miners, a combination of difficult terrain and alcohol use exacerbated the high drowning risk in the mid-nineteenth century goldfields. A contributing factor to the high drowning toll was the dependence on waterways and coastal shipping for transport. The high incidence of maritime fatalities was a consequence of: poor swimming and water survival skills of passengers and crew; poor safety equipment and regulations; inexperienced crews; natural hazards; poorly charted harbours and minimal navigation aids; and, especially earlier on, a dependence on sail rather than steam power. Death by drowning continued to rise around the turn of the nineteenth century, a consequence of population increase, low levels of swimming ability, inappropriate dress on or around water and a continuing high level of unintentional immersions. In summary, despite the lack of accurate drowning figures before 1927, the extent of the ‘New Zealand Death’ that characterised pioneer life in nineteenth century New Zealand was still very evident at the beginning of the twentieth century, so much so that death by drowning exceeded death by road incidents until as late as 1928.

Key words: drowning, New Zealand, aquatic death.

With more than 12,000 kilometres of coastline extending over ten degrees of latitude, fast-flowing rivers and large tracts of inland water, New Zealand residents and visitors alike are in frequent proximity to, and contact with, open water. Not surprisingly perhaps, this has led to a propensity of its citizens to associate with water-related activities both at work and play, and, in recent times, the development of an aquatically-focused recreational lifestyle. In the context of modern society, the aquatic environment has been identified as the second most important location for public leisure and recreation (Hillary Commission, 1991) and swimming is the third most popular activity (behind walking and gardening) undertaken by New Zealanders (Sport and Recreation New Zealand [SPARC], 2009). Familiarity with the aquatic environment, awareness of its attendant risks, and an ability to cope with those risks has not always been the norm however, especially among new settlers. It is the purpose of this paper to explore the recent aquatic history of New Zealand as it emerged in the latter half of the nineteenth century as a far flung outpost of the British Empire, attracting migrants from a mother country, Britain, where daily contact with open water was more likely to be the exception than the rule.

In a land characterised by intractable bush and hilly terrain, early Polynesian and, more latterly, European settlement, tended to be located around coastal areas, along rivers, and on lake shores. Earliest Polynesian settlement relied heavily on the abundant marine resources as a primary source of sustenance along with cultivation of kumara

(sweet potato) and other imported crop species planted in open fertile coastal areas. The cultural significance of 'Kaimoana' (seafood), still evident in contemporary Maori society, reflects the close association between the earliest settlers and the sea. The vast majority of early pa (fortified village sites), of which over 6,000 have been recorded from pre-European times, were located on the coast, a testimony of the significance of water in everyday life (McKinnon, 1997). Water also provided the transportation medium for cross-country navigation as pressure for land and hunting grew with increasing human habitation and the resultant territorialism and tribal conflict. The significance of water features in Maori society at the time is reflected in the extensive naming of rivers and inland lakes (McKinnon, 1997) as well as in the identification of Iwi (tribes) such as the ngati-wai - the water people - in Northland. Diamond (1966) noted that Maori inhabitants at the time of initial contact with Europeans referred to Auckland's west coast as 'tai tamatane' - the manlike sea - where it was considered 'mans' work to battle the boisterous surf conditions and the east coast beaches as 'tai tamahine' - the sea for girls - place names that reflect indigenous gender stereotypes of the time as much as it might reflect the physical nature of the environment. Given this geographical predisposition to settlement near water, it was not surprising that New Zealand's indigenous people developed a propensity for aquatic activity at work and at play.

Maori developed several modes of transport for both ocean and river navigation including outrigger canoes and sailing craft for open water and canoes and rafts for inland conditions. In addition to the mastery of open water navigation skills associated with epic canoe voyages, Maori also developed skills associated with the safe navigation of rivers and creeks, an asset that was to be fully utilised by early European explorers. In terms of obtaining sustenance from the sea, *kaimoana*, Maori men and women were adept at fishing and diving, activities which had obvious pre-requisites of swimming proficiency and knowledge of survival skills.

Best (1976) suggests that Maori highlighted the significance of the ability to swim by reifying it in certain folk tales and myths as exemplified by the stories of prominent females such as Hine-popo who swam from Kapiti across Raukawa (Cook Strait), a distance of more than 30 kilometres. The reification of swimming skills was probably grounded in the competencies required of women in the performance of their daily domestic roles of fishing and shellfish gathering. Dieffenbach, for example, noted that he often had occasion when observing Taranaki tribes to "admire the expertise of the women in diving for crawfish (lobster) in the surf near the Sugarloaf Islands" (Dieffenbach, 1843). In addition to swimming being interwoven into mythology, Polack noted that Maori had developed strong spiritual connotations to aquatic activities from bathing to fishing, with aquatic divinities collectively being identified as *tanihwa* or *taniwha* which were to be found in every port, river, creek, lake and sea (Polack, 1838). Best reported that, "Maori children seem to take to water as though it was their natural element, and, under favourable circumstances, learn to swim about as soon as they can walk" (Best, 1976, p.42). In a similar vein, Dieffenbach reported that Maori children near the sea or the lakes acquired the art of swimming almost before they were able to stand upright (Dieffenbach, 1843). Best also noted that Maori children were sometimes taught using *poito* (floats) made of dried gourds placed in nets and tied to the child or simply carried under one arm.

A Maori disposition to survival through their swimming competency is referred to in an early account of a drowning tragedy that occurred on the Manukau Harbour in 1841 when "of the five men in the boat only the Maori reached shore" (Diamond, 1966, p. 59). An act of bravery performed by Wetere te Rerenga, a Maori chief and native magistrate, and members of his hapu (sub-tribe) at Mokau, Taranaki in 1884, when they rescued a party of surveyors whose boat was swamped in heavy surf, was recognised by

the Royal Humane Society of Australasia with the awarding of a Bronze Medal (Bannister, 1996). This popular notion of Maori survival ability in water is re-affirmed in more recent history by the vivid description of the demise of the schooner, *May*, off Auckland's west coast at Muriwai with the loss of six crew members in 1902. The sole survivor of the shipwreck was a Maori crew member, Watti Dunn, a 19 year-old Maori from Northern Wairoa, the district's swimming champion who had his winner's medal tied to his wrist during his three kilometres swim at night through stormy seas (Diamond, 1966).

With the large scale arrival of British immigrants in the nineteenth century, their ability to swim and survive in an environment where contact with water was frequent became an obvious concern. In fact, drowning was such a commonplace cause of death among pioneers that it was often referred to in the broadsheets of the day as the "New Zealand death" (Pascoe, 1971). New Zealand's claim to this title could be challenged by the frequency of drowning across the Tasman during the early colonisation of Australia. Statistics presented by the Royal Humane Society of Australasia from 1864-1874 suggest that 2479 drowning fatalities occurred in Victoria alone, a figure which represented an annual loss of 255 persons in a year or about the usual number contained in an immigrant ship (Bannister, 1996). The first recorded drowning of a white person in Australasia from sea bathing was reported in the Sydney Gazette on Saturday, 18 July, 1818 (Meagher, 1960). In New Zealand, an early European victim of drowning was Captain William Cornwallis Symonds, Deputy Surveyor-General of New Zealand, who, in 1841, lost his life in a boating mishap on the Manukau Harbour, near Auckland, in spite of his being a powerful swimmer (Dieffenbach, 1843).

Early drowning rates in New Zealand were extremely high by modern standards, a reflection of the new arrivals' inability to swim and the type of clothing worn as well as the dependence on small craft as a means of conveyance, the dependence on waterways for navigation and the lack of bridges and safe roads. Surveyors engaged in exploration of the South Island were particularly at risk in spite of the availability of skilled Maori guides. For example, in August, 1863, three people drowned in Lake Brunner, Westland, an occurrence that was not uncommon and prompted the observation by William Pember-Reeves that "more than one of the Government officers sent there to explore were either swept away by some torrent or came back half-crippled by hunger and rheumatism" (reported in Pascoe, 1971, p. 559). Miners were particularly at risk in the rugged back blocks with multiple drowning incidence often reported, for example, in Arrow, Otago, four drowned in one incident in July, 1863; in Buller, Nelson four miners drowned in the Buller Gorge in January, 1865 and, in July of the same year, in Westland six drowned after a raft capsized whilst attempting to cross the Grey river (Appendix to the Journal of the House of Representatives [AJHR], 1870, D-46).

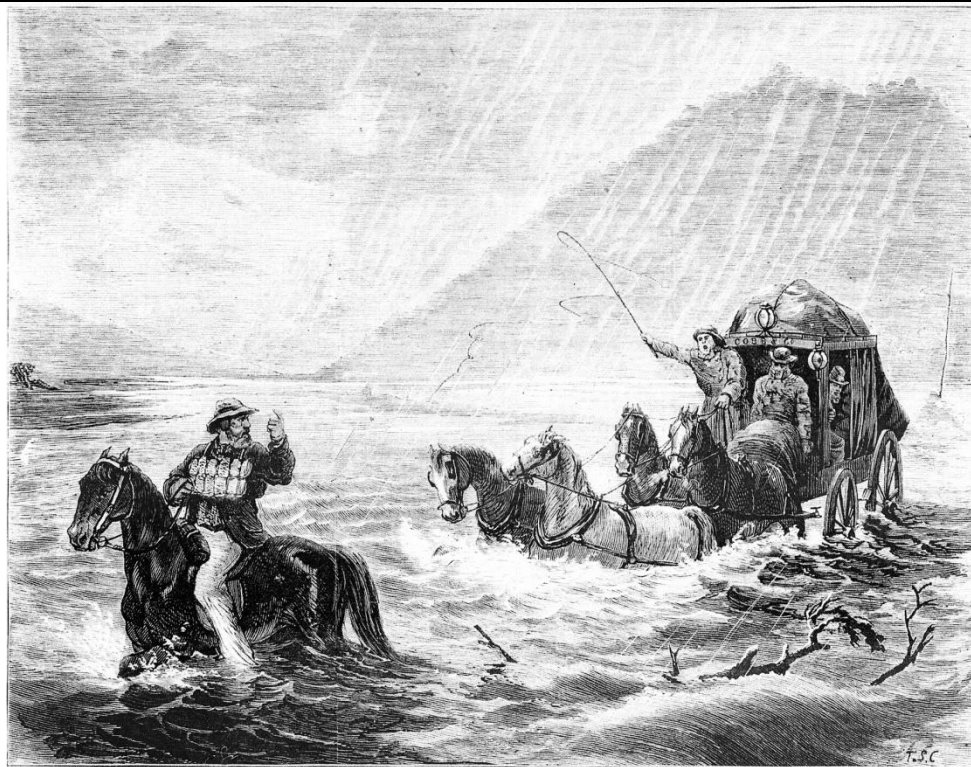
The geographical distribution of drowning by province shown in Table 1 not only reflects contemporary population distribution but also the dangers of cross-terrain travel that confronted those engaged in gold mining and exploration activities in the Otago and Westland regions at this time.

Province	No. of persons drowned
Auckland	227
Taranaki	17
Hawke's Bay	40
Wellington	165
Nelson	102
Marlborough	48
Canterbury	135
Otago	170
Southland	37
Westland	174
Total	1,115

Table 1: Distribution of drowning incidences in New Zealand rivers, 1840-1870.

Note. Taken from AJHR, 1870, D-46, p. 1.

Official statistics testify to the extent of the drowning problem. A parliamentary paper of 1870 entitled 'Persons drowned in New Zealand' reported that between 1840 and 1870, 1,115 people had drowned in New Zealand rivers and streams alone giving a clear indication of the extent of the drowning problem and the public cause for concern (AJHR, 1870, D-46). Riders taken from coroners' inquests and included in the 1870 report suggest the difficulty associated with river crossing and the role of authorities in providing safe passage by making recommendations that "government should take steps to protect life at this ford" and "government highly culpable for not having fords marked". The lack of protection from flash flooding, especially in the river plain areas of the South Island, is reflected in the loss of life reported. For example, the 1870 Report noted that within the space of two days in February, 1868, eight people had drowned as a consequence of the flooding of the Timuka and Opihi rivers, with another four fatalities in floods at Rangiora. In an earlier incident in January, 1858, fourteen people were drowned in floods in Wellington, twelve of them members of the Sellars family which included five children. Such incidences were widely reported in the news media of the day. Figure 1, first published in the *Illustrated New Zealand Herald* in 1875, shows the dangers associated with crossing swollen rivers graphically depicted in a scene of a coach negotiating the Waimakariri river, South Island, in which the ferryman is seen to be wearing a lifebelt and the accompanying article suggesting that such precautions were essential because of the way in which the fords shifted with every flood (reported in Pascoe, 1971).



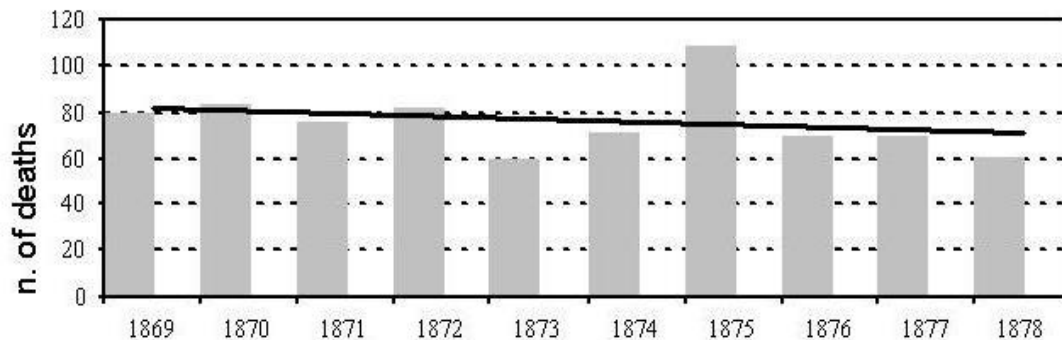
COBB'S COACH CROSSING THE WAIMAKARIRI, DURING A FLOOD.

Figure 1: Cobb's coach crossing the Waimakariri River during a flood, 1870. Note. Taken with permission of the Alexander Turnbull Library, New Zealand.

Graph 1 shows the level of river drowning in the 1870's, a decade that claimed an average of 65 deaths per year and a total of 761 souls, the equivalent of the population of pioneer settlements such Tauranga or Gisborne, both of whom had populations of approximately 500-100 in 1874 (McKinnon, 1997). The incomplete nature of such statistics notwithstanding, such a substantial loss of life in a relatively small migrant population was of considerable concern to successive pioneer governments and, by means of further comparison, represented as significant a loss to the fledgling colony as the losses sustained in the Maori Wars of the early 1860's when, between 1863-1864, at the height of hostilities, a total of 822 Maori and Pakeha were reported as killed in action (AJHR, 1865, E-13).

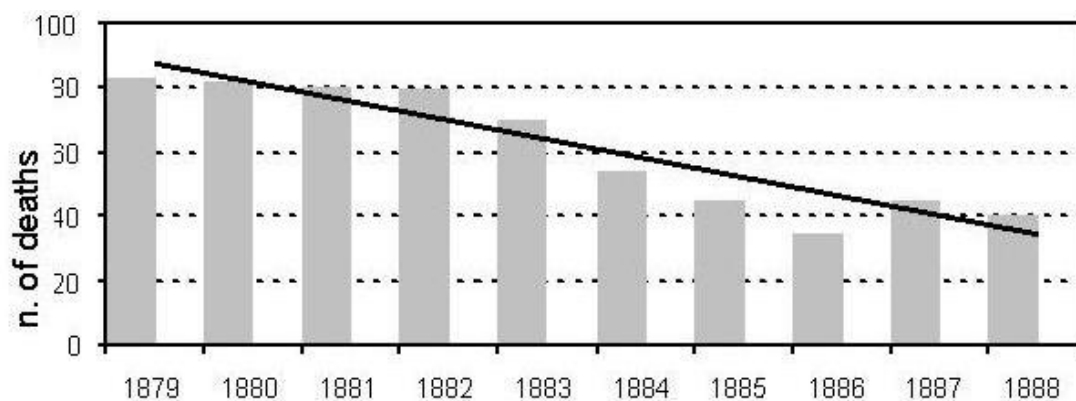
Comparison of singular events also reinforces the magnitude of the drowning problem at the time, for example, in the Maori Wars of the 1860's, 137 persons were reported as killed in action at the highly significant battle of Orakau in 1864, whilst, a year earlier a Royal Navy steam corvette, the *Orpheus*, sank on the Manukau Harbour Bar, Auckland, with the loss of 189 lives (Fairburn, 1987). New Zealand's greatest maritime disaster, the *Orpheus* had journeyed 20,000 miles from England only to meet tragedy some two miles from journey's end in Auckland just fifteen minutes sailing time and Fairburn suggests lives could have been saved "If only more of them had been stronger swimmers; if only all of them had had life-preservers." (Fairburn, 1987, p. 69). Also in 1864, at another important battle at Gate Pa, 48 were killed in action, whilst in the same year, 79 people drowned in river incidences alone (AJHR, 1870, D-46). In 1865, the full-rigged clipper sailing ship, *Fiery Star*, sank off Cuvier Island near the Coromandel Peninsula with the loss of 79 lives, while a year later, the ferry *City of Dunedin* sank in the Cook Strait between the North and South Island with the loss of 39 lives. In 1866, 73 lives were lost at sea with the sinking of the *General Grant* off the Auckland Islands

(AJHR, 1868, E-6). In 1868, as a result of severe marine weather (referred to as the ‘Great Storm’ at the time), 12 separate shipwrecks accounted for at least a further 25 lives (McLean, 1991).



Graph 1: Drowning fatalities in New Zealand Rivers, 1869-1878. Note. Data from the annual reports entitled *Persons drowned in New Zealand rivers* presented in the Appendices to the Journal of the House of Representatives, 1870-1879.

Throughout the 1880's, an order of the House of Representatives required an annual return of “Persons drowned in New Zealand Rivers” to be tabled. As can be seen from Graph 2, drowning in rivers and streams gradually declined as a consequence of greater awareness and improved roading, although, by 1885, the sum of lives lost from 1840 was still considerable at 2236 (AJHR, 1888, H-27).



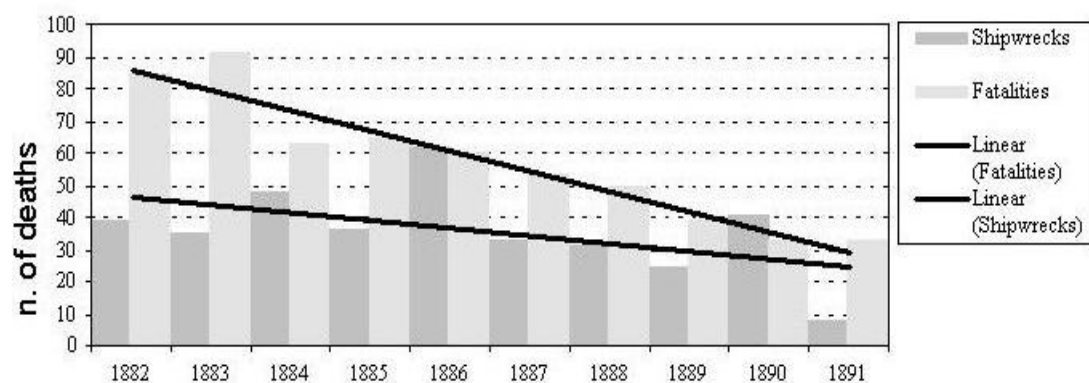
Graph 2: Drowning fatalities in New Zealand Rivers, 1879-1888. Note. Data from the annual reports entitled *Persons drowned in New Zealand rivers* presented in the Appendices to the Journal of the House of Representatives, 1880-1889.

Exacerbating the above-mentioned problem was the oft-reported propensity of many of the early settlers to mix alcohol consumption with water navigation (Pascoe, 1971; Crawford, 1985; McLean, 1991).

Apart from the high risk of drowning whilst engaged in cross-country navigation, New Zealand's pioneer population was also at risk when using coastal transport. Coastal shipwrecks and their associated fatalities were all too common in the latter part of the

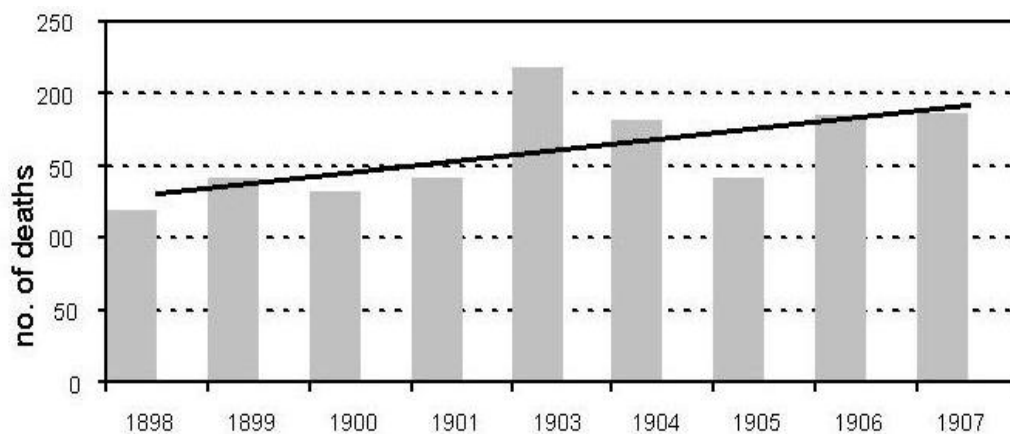
nineteenth century. Marine department reports to Parliament reflect the increased tonnage of coastal traffic and the dependence upon sea transport for passenger movement around the growing colony. One consequence of this increased economic activity was the increase in shipwrecks and drowning as indicated in Figure 3. The high incidence of fatalities was a consequence of a number of contributing factors including: poor swimming and water survival skills of passengers and crew; poor safety equipment and regulations; inexperienced crews; natural hazards; and poorly charted harbours and minimal navigation aids; and, especially earlier on, a dependence on sail rather than steam power.

However, as can be seen by the trend lines in Graph 3, by the end of the Victorian era, the number of shipwrecks and fatalities were declining as ports were made safer, ships were steam-powered, and harbour boards took up navigation and rescue responsibilities (McLean, 1991).



Graph 3: Shipwrecks and fatalities in New Zealand, 1882-1891. Note. Data from the annual reports entitled *Marine Department Reports* presented in the Appendices to the Journal of the House of Representatives, 1883-1892.

Whilst death by drowning was considered an occupational hazard for early settlers going about their daily business, a recreational incident involving a fishing expedition in a small boat in 1871, which claimed the lives of seven young men, prompted calls from the coroner and newspaper correspondents alike for regulation to prevent inexperienced persons using boats (Crawford, 1985). Whether such incidences could have been avoided by the victims having acquired appropriate aquatic skills and safety knowledge was not an issue of debate at this time.



Graph 4: Drowning fatalities in New Zealand, 1898-1907. Note. Data from the annual New Zealand Official Yearbooks, 1899-1908.

As indicated in Graph 4, death by drowning continued to rise around the turn of the century, a consequence of a combination of causes including population increase, continuing low levels of swimming ability, inappropriate dress on or around water and a continuing high level of accidental immersions – all of this in spite of improvements in transport safety brought about by improved coastal shipping safety, better road infrastructure for cross-country travel and the development of rail transport.

In summary, despite the availability of accurate figures before 1927 (New Zealand Water Safety Council, 1986), the extent of the ‘New Zealand Death’ was still very evident in earlier times, with McLean (1991) suggesting that death by drowning exceeded death by road accidents until as late as 1928. Concerns raised within political circles of the fledgling colony in the 1870’s however, did not precipitate demand for water safety education through its neophyte state education system being established at about this time. Rather the prevalence of drowning through unintentional immersion was addressed by making the environment safer by improving the transport infrastructure.

Summary

Aquatic activity featured prominently in indigenous society prior to the arrival of Europeans in the early nineteenth century. Young Maori males and females were encouraged from an early age to develop swimming and water survival skills since much of their time in childhood and subsequent adulthood would be spent in close proximity to water at both work and at play. The relatively hostile physical environment and difficulty of travel through dense bush and hilly terrains meant that settlement near the coast or close to rivers and lakes precipitated frequent contact with water, whether for transport, sustenance or recreational purposes.

With the influx of new immigrants from Britain in the latter part of the nineteenth century, their ability to swim and survive in an environment where contact with water was frequent became such a concern that drowning was referred to as the ‘New Zealand death’. Early drowning rates were extremely high by modern standards, a reflection of the new arrivals’ inability to swim, and the restrictive, heavy clothing worn. In addition, the lack of a transport infrastructure which included safe bridges, roads, railways and harbours and the dependence on small craft with inadequate safety equipment meant that cross-country or coastal navigation was dangerous and consequently exacted a high toll

on the population of the fledgling colony. Such was the concern of politicians in the 1870's that annual returns to Parliament included reports on the number of river drownings and the recording of fatalities at sea in reports of the Marine Department.

A contributing factor to the high drowning toll was the dependence on waterways and coastal shipping for transport. The high incidence of maritime fatalities was a consequence of: poor swimming and water survival skills of passengers and crew; poor safety equipment and regulations; inexperienced crews; natural hazards; poorly charted harbours and minimal navigation aids; and, especially earlier on, a dependence on sail rather than steam power. Such a substantial loss of life in a relatively small migrant population was of considerable concern to successive pioneer governments and, by means of further comparison, represented as significant a loss to the fledgling colony as the losses sustained in the Maori Wars of the early 1860's. The incomplete nature of nineteenth century statistics notwithstanding, a comparison of 1870's drowning rates of 31.4 per 100,000 among the non-Maori population (255,000 in 1871) with current drowning rates of 2.2 per 100,000 in a population of 4 million suggests a fifteen-fold difference based on drowning occurrences in rivers alone - the inclusion of maritime and other miscellaneous drowning occurrences at the time would make the comparison even more stark.

Death by drowning continued to rise around the turn of the nineteenth century, a consequence of population increase, low levels of swimming ability, inappropriate dress on or around water and a continuing high level of unintentional immersions. The increase in drowning fatalities persisted in spite of improvements in transport safety brought about by improved coastal shipping safety, better road infrastructure for cross-country travel, and the development of rail transport. Up until this time, aquatic activity as a form of recreation had been limited in the work-oriented life of the early British settlers. Occupations were essentially pastoral and characterised by hard labour, few holidays and little leisure time. As society became increasingly mechanised and urbanised at the end of the nineteenth century, the nature of leisure time changed from being a time of recuperation to an opportunity for activity-oriented recreation, and drowning became more frequently associated with recreational misadventure – a condition that characterises the modern day disease of drowning in New Zealand.

References

- Appendix to the Journal of the House of Representatives (1865). *Parliamentary Report*, E-13, p. 1. Wellington, New Zealand: AJHR.
- Appendix to the Journal of the House of Representatives (1868). *Parliamentary Report*, E-6, p. 16. Wellington, New Zealand: AJHR.
- Appendix to the Journal of the House of Representatives (1870). *Persons drowned in New Zealand rivers*. AJHR, D-46, pp. 4-6. Wellington, New Zealand: AJHR.
- Appendix to the Journal of the House of Representatives (1888). *Annual report of persons drowned in New Zealand rivers*. H-27, p. 2. Wellington, New Zealand: AJHR.
- Appendix to the Journal of the House of Representatives (1891). Marine Department Reports, 1882-91. Wellington, New Zealand: AJHR.
- Bannister, C. (1996). *7000 Brave Australians*. Melbourne, Australia: Royal Humane Society of Australia.
- Best, E. (1976). *Games and Pastimes of the Maori*. Wellington, New Zealand: Government Printer.
- Crawford, S.A.G.M. (1985). The consolidation of sport and the expansion of recreation in Colonial New Zealand: The case study of Dunedin in the 1870's and 1880's. *New Zealand Journal of Health, Physical Education and Recreation*, 17(3), 5-11.
- Diamond, J.T. (1966). *Once - The wilderness*. Auckland: Wilkinson, V.H.
- Dieffenbach, E. (1843). *Travels in New Zealand*. London: John Murray. Re-print published by Capper Press, Christchurch (1974).

- Fairburn, E.T. (1987). *The Orpheus disaster*. Whakatane: Whakatane and District Historical Society Inc.
- Hillary Commission (1991). *Life in New Zealand Survey*. Wellington, New Zealand: Hillary Commission.
- McKinnon, M. (Ed.) (1997). *New Zealand historical atlas*. Auckland: David Bateman.
- McLean, G. (1991). *New Zealand tragedies: Shipwrecks & maritime disasters*. Wellington: Grantham House.
- Meagher, T. W. (1960, September). Highlights of surf life-saving history. *Etruscan*, 19-24.
- New Zealand Government (1897-1907). *New Zealand Official Yearbooks*. Wellington, New Zealand: New Zealand Government Printer.
- New Zealand Water Safety Council (1986). *Annual Report, 1986*. Wellington: NZWSC.
- Pascoe, J. (1971). The New Zealand Death. *New Zealand's Heritage*, 2(20), 556-560.
- Polack, J. S. (1838). *New Zealand: Being a narrative of travels and adventures Vol. 2*. London: Richard Bentley.
- Sport and Recreation New Zealand (2009). *Sport and Recreation Participation Levels: Findings from the 2007/08 Active Surveys*. Wellington: SPARC. Retrieved on 10 November 2011 from <http://www.activenzsurvey.org.nz/Documents/Participation-Levels.pdf>

James Bond and Swimming: The Books

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Abstract

Introduction: In Ian Fleming's James Bond novels his hero often swims through exotic and dangerous waters. Bond's athletic and aquatic adventures were wet-dream writing in the 1950s and still serve as a model of blatant wish fulfillment in contemporary novels and films. **Method:** Having read the 12 novels and 8 short stories by Fleming I read Andrew Lycett's 1995 biography and two critiques, by Kingsley Amis and Raymond Benson. I talked to people for whom reading the books in their youth was formative, as well as those with knowledge of politics, fish and skin-diving (Personal communication with P. Bartu, B. Curley, A. Wayne on September/October 2010). **Conclusion:** Ian Fleming wrote fast-paced short novels where his amoral hero moved with panache through exotic locations. Fleming invented a glamorous lifestyle where Bond's taste defined him; he's a gourmet with a gun and a girl. It has proved to be a very enduring male fantasy during the last half-century. Ian Fleming never described his hero's swimming action. I presume he swam freestyle and saved his backstroke and breaststroke for the boudoir.

Key words: swimming, violence, fantasy.

In Ian Fleming's James Bond novels his hero often swims through exotic and dangerous waters. Bond's athletic and aquatic adventures were wet-dream writing in the 1950s and still serve as a model of blatant wish fulfillment in contemporary novels and films. This article aims to overview the swimming related activities in the James Bond books.

Method

Having read the 12 novels and 8 short stories by Fleming I read Andrew Lycett's 1995 biography and two critiques, by Kingsley Amis and Raymond Benson. I talked to people for whom reading the books in their youth was formative, as well as those with knowledge of politics, fish and skin-diving (Personal communication with P. Bartu, B. Curley, A. Wayne on September/October 2010).

The Caribbean Birth of James Bond: a Legend of Book and Film

In March 1945 Ian Fleming bought a block of land at Oracabessa, Jamaica, overlooking a beautiful bay and reef where he designed a house called Goldeneye. Fleming found swimming in the Caribbean exhilarating. "Every exploration and every dive results in some fresh incident worth the telling; and even when you don't come back with any booty for the kitchen, you have a fascinating story to recount" (Lycett, 1995, p. 174).

Writing for 'Horizon', a London magazine, he extolled the benign climate with its regular 'Doctor's Wind' in the morning and 'Undertaker's Wind' in the evening, and while the local politics and sand flies were problematic, they compared "quite favourably with the more civilised risks – spivs, road deaths, flu and vitamin deficiency – which infest your English life." (Lycett, 1995, p. 175).

Every couple of months after Christmas, from January 1952 till he died in 1964, Fleming would type the draft of a James Bond story at Goldeneye. Bond goes swimming in half of the twelve novels and four feature violent underwater fights.

Fleming's escapist travelogues following his indefatigable hero swimming through tropical mayhem were very exotic in the 1950s. Air travel was only for the wealthy, and

the warm beaches of the Mediterranean, Caribbean and the Pacific were way out of reach to most of Fleming's readers. He provided what Joe Lampton, the working-class hero in the 1959 film *Room at the Top*, said he wanted: "*a clerk's dream – a girl with a Riviera tan and a Lagonda ...*" (Paterson, 1959, p. 95).

Bond's First Swim, in the cold English Channel, near the end of *Casino Royale*
Bond's first swim, in the first novel, *Casino Royale*, 1952, occurs after he has recovered from a brutal beating at the hands of the villainous gambler, Le Chiffre. Vesper Lynd, the heroine, takes him to stay at an old beachside inn, on north coast of France, it's called *L'Auberge du Fruit Defendu*, (Inn of the Forbidden Fruit).

"He walked along the waterline on the hard golden sand until he was out of sight of the inn. Then he threw off his pyjama-coat and took a short run and a quick flat dive into the small waves. The beach shelved quickly and he kept underwater as long as he could, swimming with powerful strokes and feeling the soft coolness all over him. Then he surfaced and brushed the hair out of his eyes." (Fleming, 1953, p. 165).

A Sketch of James Bond

In this first book we are introduced to Fleming's technique of fast paced narrative and abundant details. His Bond is attractive and athletic, but not exceptionally so. He is knowledgeable and observant about food, wine and women but has few cultural interests. He has lethal skills and a knight-errant moral code, and by turns he is disciplined then impetuous. Fleming created his secret agent as a modern Byronic hero, dangerous, vital and enigmatic. Yet James Bond, like his name, is prosaic enough for the readers to flesh out their own fantasies as they turn the pages.

Bond Swims in the Shark Infested Waters of *Live and Let Die*

For a man who was notably hospitable to his guests and loved to swim in the sea, Fleming did some strange things. His stalwart Jamaican housekeeper, Violet Cummings, recalls him buying the carcasses of dead donkeys and cattle and feeding them to the sharks. "*Usually he'd invite friends from all over the island to watch with him, and they'd have lots of fun*" (Benson, 1988).

Fleming must have been taking notes at the time. The second novel, *Live and Let Die*, set in Florida and Jamaica, has plenty of aqua and gore. There is the warehouse scene full of fish tanks, big ones with

"...torpedo Skates and the sinister Guitar Fish, to the smaller ones for the Horse-Killer Eel, Mud Fish from the Pacific and the monstrous Scorpion Fish, each of whose spines has a poison sac as powerful as a rattlesnake's." (Fleming, 1954, p. 157).

Not forgetting the shark pool under the concrete trap-door. The villain has a thing for marine homicide and Bond

"... guessed that somehow the forces of the sea had been harnessed to do The Big Man's work for him and it is on these that he concentrated, on murder by shark and barracuda, perhaps by Manta Ray and octopus. On the next day he started his training under the critical, appraising eyes of Quarrel. Every morning he swam a mile up the beach before breakfast and then ran back along the firm sand to the bungalow. ...Quarrel would take him out with spears and masks and an old underwater harpoon gun on breathtaking expeditions in the sort of waters he would encounter in Shark Bay. Soon Bond too learned

not to fight the sea but always to give and take with the currents and eddies and not to struggle against them, to use judo tactics in the water.” (Fleming, 1954, p. 187).

The judo tactics didn't work. At the climax of the book Bond and Solitaire are stripped naked and about to be towed over the reef when the villain's boat explodes. The Big Man is thrown clear, into the water near Bond.

“Then the shark's snout came right out of the water and it drove in towards the head, the lower curved jaw open so that light glinted on the teeth. There was a horrible grunting scrunch and a great swirl of water. Then silence” (Fleming, 1954, p. 241).

And then the chapter's final sentence:

The first tears since his childhood came into James Bond's blue-grey eyes and ran down his cheeks into the bloodstained sea” (Fleming, 1954, p. 241).

Ian Fleming's life and his James Bond Alter-Ego

An early appraisal of James Bond saw him as a character full of sex, sadism and snobbery, with violence. He's not a secret, secret agent; he introduces himself as *"Mine's Bond – James Bond."* He's not subtle. He is well-mannered and loyal to male friends, queen and country. He's not humorous in the books. He fights strictly man-to-man with the bad guys and varies between rapine and tenderness with the women.

So what does this say about the author, to create this part-thug, part-gentleman spy as his alter-ego? Without making too much of it, perhaps there is something under the surface that could be due to Fleming's English upper-class education at Eton and Sandhurst combining the Classics and corporal punishment. Then there's his heroic father who died opposite the Hindenberg Line in 1917 and left the family purse strings to Fleming's beautiful and domineering mother, and the successful, inheriting older brother and a younger brother who died after Dunkirk as a POW.

At age 18, Fleming was packed off by his mother to round out his education on the Continent, and getting away from the family was a good thing. He spent three years in the Austrian Tyrol, Munich and Geneva learning, among other things, French, German and passable Russian. Back in England in 1931 he failed the Foreign Office exam, but his mother pulled some strings to have him hired by Reuters News Service where he excelled as a journalist and manager. He left Reuters in 1933 to be a London stock broking bachelor, combining a well-paid day job with an indulgent night life.

In 1939, when war with Germany was imminent, the old boys' network chose Ian Fleming to be the personal assistant to the Director of Naval Intelligence, Rear Admiral John Godfrey. Commander Fleming showed his organizational abilities, diplomacy and flair in making a valuable contribution to his part of the hostilities. During the war he travelled to France, Morocco, North America and Jamaica, where he fell in love with the Caribbean. After the war Fleming became the Foreign Manager for Kemsley Newspapers, and in that capacity wrote travel and adventure stories from around the world, often for *The Sunday Times*.

Cousteau's Underwater Activities are Great Material for Bond the Swimmer

In 1953 he went to Marseilles to interview Jacques Cousteau who was salvaging a Greco-Roman galley with a team of divers on his research vessel *Calypso*. Fleming spent two weeks there, reporting that diving is "a lonely and queer business". The parallels in their early lives are interesting: Fleming was born in 1908, Cousteau in 1910; they both had a privileged upbringing; they both worked in naval intelligence. Cousteau spent some of his

youth in America, and consequently spoke fluent English. He was in the French Naval Information Service from 1936, visiting Japan, China and Russia, and while based in Morocco he managed some commando operations late in WW2.

Cousteau and his partner Emile Gagnan perfected an open-circuit, free-diving gas cylinder and breathing regulator they called the 'aqualung'. Cousteau was on the cover of *National Geographic* and had just published a book titled *Silent World* when Fleming came to meet him. Two years later, in 1955, he made a colour underwater film of the same name with Louis Malle, winning an Academy Award and a Cannes Palm d'Or.

This was the popular beginning of sport diving and also whetted an appetite for Bond's aquatic adventures.

Of course spear fishing had existed since the Stone Age, but doing it underwater needed a mask, fins and snorkel. The Mediterranean boasted a couple of sports diving clubs in the 1930s, and San Diego, California, has had the 'Bottom Scrapers' club since 1933 (it's still going). California was also where Owen Churchill patented his design for swim fins in 1940.

The various navies had 'frogmen' trained with rubberized suits and breathing apparatus as underwater sappers to mine and de-mine harbors and ships, so after the war there was surplus military equipment. A limited range of frogmen suits, masks and fins were available for the diving enthusiast. When this supply ran out, people resorted to gluing plywood onto their sandshoes for swim fins, and by 1955 Britain's *Popular Mechanics* magazine had an article on 'Make your own Aqualung'.

Kennedy's Readings Promotes the Bond Books, *Dr No*, the First Film is Released

Fleming's books passed virtually unnoticed in the USA until 1961, when John Fitzgerald Kennedy said from *Russia With Love* was one of his ten favorite books. I wonder if during the Missile Crisis of October 1962, President Kennedy, or for that matter Premier Krushchev, read Fleming's *Dr No*, where the villain beams false instructions to US missiles from an island in the Caribbean. *Dr No* happened to be the first Bond movie, released in England that very month and in the US seven months later. Made for \$1 million, it was a hit on both sides of the Atlantic.

Let's dive into *Dr No*, chapter 18, titled "Killing Ground":

"Bond's body shattered the mirror of the dawn sea like a bomb. As he had hurled down the silver shaft towards the widening disc of light, instinct had told him to get his knife from between his teeth, to get his hands forward to break his fall, and to keep his head down and his body rigid. And, at the last fraction of a second when he glimpsed the up-rushing sea, he managed to take a gulp of breath" (Fleming, 1958, p. 161).

Two pages later:

"Bond stared down, half hypnotised, into the wavering pools of eye far below. So this was the giant squid, the mythical kraken that could pull ships beneath the waves, the fifty-foot-long monster that battled with whales, that weighed a ton or more. What else did he know about them? That they had two long seizing tentacles and ten holding ones. That they had a huge blunt beak beneath eyes that were the only fishes' eyes that worked on the camera principle, like a man's. That their brains were efficient, that they could shoot backwards through the water at thirty-knots, by jet-propulsion" (Fleming, 1958, p. 163).

And there we have it – fictional hero meets fictional aquatic creature. Earlier in the book he had already met a very different aquatic creature.

"Bond shifted his head and peered through the fringe of leaves and grass that concealed him

from the beach. He stiffened. His heart missed a beat and then began pounding so that he had to breathe deeply to quieten it. His eyes, as he stared through the blades of grass, were fierce slits. It was a naked girl, with her back to him. She was not quite naked. She wore a broad leather belt around her waist with a hunting knife in a leather sheath at her right hip. The belt made her nakedness extraordinarily erotic...The whole scene, the empty beach, the green and blue sea, the naked girl with strands of fair hair, reminded Bond of something. He searched his mind. Yes, she was Botticelli's Venus, seen from behind." (Fleming, 1958, p. 66).

Fleming's Domestic Dilemmas

Dr No was the sixth novel Fleming had typed on his gold-plated Royal typewriter at Golden Eye. The place was Fleming's redoubt from the wide world, and increasingly from his wife, Ann, a strong-minded and beautiful woman who swam in the whirlpool of London high society. Jack Donaldson, a future Labour Minister, stayed with the couple in 1961 and noted that Fleming no longer swam outside the reef while his wife did; he thought Ann the more adventurous one, while "*Ian found danger a bit of an effort.*" (Lycett, 1995, p. 381).

Noel Coward, a friend and neighbor in Jamaica and a witness at Fleming's wedding in 1952, wrote a decade later that their "...*connubial situation is rocky. Annie hates Jamaica and wants him to sell Goldeneye... It is extraordinary how many of my friends delight in torturing each other.*" (Lycett, 1995, p. 380). The fact that Fleming's mistress, Blanche Blackwell, lived down the road from Goldeneye, didn't help.

Thunderball's Dangerous Waters

The eighth Bond novel, *Thunderball*, written in 1961 and set in the Bahamas, features hijacked planes, hijacked nuclear bombs, and Bond on a nuclear-armed US submarine leading an underwater attack against the forces of SPECTRE who are armed with compressed-air speed packs, CO2 spear guns and aqua-sleds. Commander Bond looks the American captain in the eye:

"We've got to get their underwater team with our underwater team."

The captain agrees.

"I guess what you say makes sense Commander. We have plenty of oxygen rebreathers on board. We also have ten of the finest swimmers in the Nuclear Flotilla. But they'll only have knives to fight with. I'll have to ask for volunteers." He paused. 'Who's going to lead them?' Bond said, 'I'll do that. Skin-diving happens to be one of my hobbies. And I know what fish to look out for and which ones not to mind about. I'll brief your men about those things.' (Fleming, 1961, p. 214).

Soon Bond and his men were fighting a losing battle against superior equipment, and the villain, Emilio Largo, has him by the throat.

"Slowly he sank to his knees. But how, why was he sinking? What had happened to the hand at his throat? His eyes, squeezed tight in agony, opened and there was light. The octopus, now at his chest, let go and shot away amongst the coral. In front of him Largo, Largo with a spear sticking horribly through his neck, lay kicking feebly on the sand. Behind him and looking down at the body, stood a small, pale figure fitting another spear into the underwater gun. The long hair flowed around her head like a veil in the luminous sea." (Fleming, 1961, p. 230).

Bond is Rescued by a Japanese Mermaid in *You Only Live Twice*

Three years later, in 1964, Bond needs assistance and rescuing by another capable woman, this time off the coast of Japan, where he finally vanquishes Ernst Blofeld in *You Only Live Twice*. Bond decides to swim to the villain's lair (called Dr Shatterhand's Castle of Death) disguised as a ninja. We pick up the action as Kissy Suzuki, an *amabi* shell diver, and Bond get ready for the final swim.

"She came up to him and threw her arms around his neck and kissed him full on the lips. Before he could respond, she had pulled down her goggles and had dived into the quiet, mercury sea. Kissy's crawl was steady and relaxed and Bond had no difficulty in following the twinkling feet and the twin white mounds of her behind, divided excitingly by the black cord. But he was glad that he had donned flippers because the tug of his floating container against his wrist was an irritating brake and, for the first half of the swim, they were heading diagonally against the easterly current through the straits" (Fleming, 1964, p. 141).

Bond is badly wounded as he escapes from the exploding castle, presumed dead, in fact his obituary is published in *The Times*, but:

"When Kissy saw the figure, black-winged in its kimono, crash down into the sea, she sensed that it was her man, and she covered the two hundred yards from the base of the wall as fast as she had ever swum in her life... 'We are all trained in such rescue work [she explains].'...with his head cradled between her breasts, she set off with the traditional backward leg-stroke. It was an amazing swim for a girl – half a mile with currents to contend with and only the moon and an occasional glance over her shoulder to give her bearing, but she achieved it and finally hauled Bond out of the water in her little cove and collapsed on the flat stones beside him." (Fleming, 1964, p. 181).

The book is not without humor. Fleming caricatures the renowned journalist Richard Hughes as 'Richard Lovelace Henderson, of Her Majesty's Australian Diplomatic Corps', who calls Bond, "the stupid pommy bastard", and defines for him the meaning of the great Australian insult, "bludger: it means a worthless pervert, ponce, scoundrel, liar, traitor and rogue – with no redeeming feature." (Fleming, 1964, p. 36).

Early in the book, Fleming, then 54 years old, has Bond consider the ages of man.

"The state of your health, the state of the weather, the wonders of nature – these are things that rarely occupy the average man's mind until he reaches the middle thirties. It's only on the threshold of middle-age that you don't take them all for granted, just part of an unremarkable background to more urgent, more interesting things" (Kingsley, 1965).

The Bond Films of the Bond Books become Worldwide Hits

By the time the first Bond movie, *Dr No*, was released in 1962, Fleming's private daydreams had become a worldwide phenomenon. In my collection of paperbacks after that date, 'James Bond' is in bigger print than the author's name.

When interviewed at the time, Fleming said, "I write for warm-blooded heterosexuals in railway trains, aeroplanes, and beds." He quotes his own writing from *Dr No* to distinguish himself from his creation: "The main difference is I'm not a tough individual. All I ever do is take a little exercise which doesn't compare well with Bond's usual routine of up at seven, swim a quarter of a mile, an hour's sunbathing, run a mile, swim again, lunch, sleep, sunbathe, hot bath and massage, dinner, and asleep by nine – that is, when he's training." (Kingsley, 1965, p. 155).

Bond has his last swim in 1964 after watching Scaramanga, the man with the golden gun, do some impressive gymnastics.

Bond walked thoughtfully down to the beautiful crescent of white sand fringed with gently clashing palm trees. He dived in and, because of the other man's example, swam twice as far as he had intended. (Fleming, 1965, p. 85).

Author Dies, Bond Lives on in New Books and Films

Ian Fleming died in August 1964, his last published works were three short stories. Bond appears briefly in one of these, *Octopus*, as does the West Indian scorpion fish.

"And then the tentacles leapt! But not at the fish! At Major Smythe's hand and arm. Major Smythe's torn mouth stretched in a grimace of pleasure. Now he and Pussy had shaken hands! How exciting! How truly wonderful! But then the octopus, quietly, relentlessly, pulled downwards and terrible realisation came to Major Smythe. He summoned his dregs of strength and plunged his spear down. The only effect was to push the scorpion fish into the mass of the octopus and offer more arm to the octopus. The tentacles snaked upward and pulled more relentlessly." (Fleming, 1966, p. 51).

It is fitting that the scene for the last James Bond adventure should be placed in what British writer Claude Cockburn calls "*the amoral underworld of the sea*" (Kingsley, 1965).

Another British writer, Kingsley Amis, who was quick to put out *The James Bond Dossier* in 1965 (by Jonathan Cape, Fleming's publisher), reckons there are three Fleming situations: "*Bond is wined and dined, lectured on the aesthetics of power, and finally tortured by his chief enemy*" (Kingsley, 1965, p. 21). I would add that, as it was for Homer's archetypal hero Odysseus, there is a watery journey and a watery resurrection in many of Bond's adventures.

Summary

Many of my own heroes, like Fleming's, come from a particularly British world of books. In James Bond I feel the unresolved vengeance of Emily Bronte's Heathcliff; the masculine, analytical and easily bored nature of Arthur Conan Doyle's Sherlock Holmes, and J. M. Barrie's brave and impetuous Peter Pan. Pan, of the Lost Boys, if you remember, battled continually with his sea-going adversary, Captain Hook, a pirate villain who also had his own ticking, aquatic nemesis, a crocodile who had eaten his hand and swallowed a clock. Ian Fleming wrote 12 novels and 8 short stories about Bond's adventures. Since his death another 33 novels have been written featuring Bond by other writers, as well as 7 stories about 'Young Bond'. To date the James Bond character has been played by various actors in 24 film productions, and it doesn't look like stopping anytime soon.

Ian Fleming never describes Bond's swimming technique. I presume that the man of action would have swum freestyle and saved his backstroke and breaststroke for the boudoir.

References

- Amis, K. (1965). *The James Bond Dossier*. London, UK: Jonathan Cape Ltd.
Benson, R. Ed. (1988). *The James Bond Bedside Companion*. New York, USA: Dodd, Mead & Co.
Fleming, I. (1953). *Casino Royale*. London, UK: Jonathan Cape Ltd.
Fleming, I. (1954). *Live and Let Die*. London, UK: Jonathan Cape Ltd.
Fleming, I. (1955). *Moonraker*. London, UK: Jonathan Cape Ltd.
Fleming, I. (1956). *Diamonds Are Forever*. London, UK: Jonathan Cape Ltd.
Fleming, I. (1957). *From Russia with Love*. London, UK: Jonathan Cape Ltd.

- Fleming, I. (1958). *Dr No*. London, UK: Jonathan Cape Ltd.
- Fleming, I. (1959). *Goldfinger*. London, UK: Jonathan Cape Ltd.
- Fleming, I. (1960). *For Your Eyes Only*. London, UK: Jonathan Cape Ltd.
- Fleming, I. (1961). *Thunderball*. London, UK: Jonathan Cape Ltd.
- Fleming, I. (1962). *The Spy Who Loved Me*. London, UK: Jonathan Cape Ltd.
- Fleming, I. (1963). *On Her Majesty's Secret Service*. London, UK: Jonathan Cape Ltd.
- Fleming, I. (1964). *You Only Live Twice*. London, UK: Jonathan Cape Ltd.
- Fleming, I. (1965). *The Man with the Golden Gun*. London, UK: Jonathan Cape Ltd.
- Fleming, I. (1966). *Octopussy*. London, UK: Jonathan Cape Ltd.
- Pearson, J. (1966). *The Life of Ian Fleming*. London, UK: Jonathan Cape Ltd.
- Sprawson, C. (1992). *The Haunts of the Black Masseur, The Swimmer as Hero*. New York, USA: Pantheon Books.
- Lycett, A. (1995). *Ian Fleming*. London, UK: Weiderfeld & Nicolson.
- Macintyre, B. (2008). *For Your Eyes Only - Ian Fleming and James Bond*. London, UK: Bloomsbury Publishing.

Body, Mind and Spirit: The Representation of Swimming in Olympic Documentary Films

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Introduction: The official documentary films of the Olympics portray the Games' pageantry and the glory of competition. Often commissioned by the host nation, these films attempt to reflect its culture and ideologies. The representation of swimming within these official films provides a lens through which viewers can understand the social, historical and political context of the time. **Method:** A critical analysis of the swimming sequences in several Olympic films was performed in conjunction with a literature review of socio-cultural role of swimming during the corresponding Olympic quadrennials. Additional research included an examination of changing film technologies and their impact on the representation of Olympic sport. **Results:** Slow and deliberate technologies of the early twentieth century enabled governing bodies and influential parties to create a controlled Olympic film experience. Despite the advances in technology and the democratization of contemporary society, this control still exists; however the stories themselves have evolved from an illicit gaze at a swim suited human form to an examination of an athlete's national responsibility post-World War II to reverence for individualism. **Discussion:** Examination of the swimming sequences of select Olympic documentary films reveals the continued influence of social and political authority over the images of the Games. Leni Riefenstahl's 1936 film, *Olympia*, is frequently disputed as less a documentary of the Games and more a representation of Nazi propaganda. Despite these enduring debates, *Olympia* continues to be recognized as a significant contribution to the art of filmmaking and a statement of the times. In particular, Riefenstahl's famous diving sequence, in which the director suspended time and constructed the image of the ultimate human form against the backdrop of the heavens, illustrates how Riefenstahl liberates the athletic body from the constraints of the bourgeois confines of the early twentieth century. The late contemporary filmmaker, Bud Greenspan, shaped his stories around individual athletes and their will to endure the rigors of elite competition in accordance with the late twentieth century emphasis on individualism. America's official Olympic documentarian, Greenspan admittedly looked at the Olympics "through rose-colored glasses"—untainted by any concurrent political or social unrest. Rather, he created emotional narratives to lure viewers with the magnificence of individual spirit. **Conclusion:** Though it seems unlikely that future Olympic governing bodies will release control of their official films' messages, future filmmakers and film audiences should be encouraged to consider the ideologies of the host nation in order to fully understand what the visual record claims to represent.

References

- Greenspan, B. (1997). How I Filmed the 1896 Athens Olympics. *Journal of Olympic History*, 5(2), 16-19.
- Greenspan, B. (1985). 16 Days of Glory. *The Runner Magazine*, 9, 701-705.
- Lassoued, B. (1997). The Olympic Spirit. *Olympic Review*, XXVI-15, 11-13.
- Masumoto, N.. (1994) Interpretations of the Filmed Body: An Analysis of the Japanese Version of Leni Riefenstahl's *Olympia*. *Critical Reflections on Olympic Ideology*. Centre for Olympic Studies, 1994. 146-158. Retrieved 31 March 2008 [http:// www. la84foundation.org /SportsLibrary/ISOR/ISOR1994t.pdf](http://www.la84foundation.org/SportsLibrary/ISOR/ISOR1994t.pdf).
- Sutton, S. & Sutton, P. (2001). Bud Greenspan the Olympic Storyteller. E2 Productions. Retrieved 29 August 2008 from kodak.com/US/en/corp/features/greenspan/

A History of the Lifesaving Foundation's Ireland Medal and its Recipients

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Abstract

The Ireland Medal was introduced in 2004 as a joint project between the Irish Lifesaving Foundation and The Royal Life Saving Society Republic of Ireland Branch (RLSS IRELAND) to mark the centenary of the RLSS branch (1904-2004) and the birth of The Irish Lifesaving Foundation as a legally independent charity in 2003. The Foundation had originated as an RLSS IRELAND sub-committee (Connolly, in press). The medal is 50 millimeters in diameter and 4 millimeters thick, is manufactured by Lee Brothers of Dublin, Ireland, and is struck in sterling silver and gilded. It is awarded annually *'to an Irish person or organization or to a person of Irish descent in recognition of an exceptional contribution to saving lives from drowning'* and has been awarded 9 times. The medal has a high status within world lifesaving circles due to the quality of medal recipients, often generates valuable publicity for lifesaving, and frequently draws attention to hidden or overlooked aspects of drowning.

Key words: lifesaving, lifeguarding, Ireland Medal, drowning, The Lifesaving Foundation.

In 2003 The Irish Lifesaving Foundation, having originated as a sub-committee of The Royal Life Saving Society Republic of Ireland Branch (RLSS IRELAND), decided to mark the centenary of Royal Life Saving Society activity in Ireland by way of introducing a special medal recognizing exceptional contributions to saving lives from drowning. The award, to be presented in 2004, would also be used to publicize the Foundation's incorporation as a fully independent Irish charity. The medal would be awarded *'to an Irish person or organization or to a person of Irish descent in recognition of an exceptional contribution to saving lives from drowning'*. Following much consideration a gilded sterling silver medal 50 millimeters in diameter and 4 millimeters thick, manufactured by Lee brothers, Dublin, Ireland, was chosen. The medal obverse has an image of a swimmer towing a drowning casualty (**Figure 1**). The reverse is blank to facilitate the engraving of a recipient's name and the year received.



Figure 1: A black and white image of the obverse side of the Ireland Medal. Note. Gilded sterling silver medal 50 millimeters in diameter and 4 millimeters thick, manufactured by Lee brothers, Dublin, Ireland.

The Formation and Operation of RLSS IRELAND

RLSS IRELAND is the working title of The Royal Life Saving Society Republic of Ireland Branch (RLSS IRELAND, 2012). It is a sub-member of The Royal Life Saving Society United Kingdom National Branch (RLSS UK) for historical reasons (RLSS UK, 2012). RLSS UK is the founding member of the Royal Life Saving Commonwealth (RLSS Commonwealth, 2012).

The Royal Life Saving Society was founded in London, on the 3rd January 1891, as The Swimmers' Life Saving Society but the name was quickly changed to The Life Saving Society. In 1904 the organization was granted the prefix 'royal' by His Majesty King Edward VII becoming The Royal Life Saving Society (Pearsall, 1991). Ireland was part of the British Empire at the time. Irish school teachers, working in the United Kingdom, were early participants in Life Saving Society classes and they introduced lifesaving to Ireland through inter-school visits. In Ireland life saving instruction was added to after-school programmes in mainly private schools. By 1904 there was a structured RLSS organization in Ireland (RLSS IRELAND 2004).

When Ireland gained its independence in 1922 the then members choose to remain within RLSS UK and not form a new separate organization for two key reasons. First, because they saw that the original organization was non-racial and non-sectarian treating all members equally. Second, because remaining within RLSS UK would negate the need to set-up and fund a new headquarters structure.

This decision was reaffirmed, for the same reasons, in 1948 when Ireland declared itself to be a republic, in 1968 shortly after the foundation of Irish Water Safety as Ireland's statutory national life saving organization, and in 2003 in the lead in to the Irish centenary celebrations (Connolly n.d.). The Royal Life Saving Society continues to have a strong presence in Ireland, especially in the area of lifeguard training. It celebrated its centenary in Ireland in 2004 (RLSS IRELAND 2004).

The Irish Lifesaving Foundation

The Lifesaving Foundation began as an Overseas Aid Sub-committee of RLSS IRELAND in 1999. The sub-committee raised funds supporting projects in developing countries, especially in Africa, sending equipment and clothing to embryonic lifesaving groups and tutors to train lifesavers. In 2003, the sub-committee was disbanded and reformed as a separate charity registered in Ireland as The Irish Lifesaving Foundation. In 2011, the name was changed to The Lifesaving Foundation in recognition of an increasing international membership and re-registered as a charity in Ireland (see www.lifesavingfoundation.ie).

The Foundation has four key project areas in addition to awarding the Ireland Medal. These are the promotion of female swimming instruction worldwide (specifically via the Sri Lanka Women's Swimming Project, 2012), a Lifeguard Training Project whereby unemployed youths in developing countries are trained as lifeguards for employment, the publication of water safety information, and the promotion of drowning research (particularly in the field of suicide by drowning). The Foundation currently supports projects in Lesotho, Sri Lanka, South Africa, Kenya and Tanzania (Connolly, in press).

The Ireland Medal

Although the Ireland Medal was to be launched in 2004 a decision was taken to award the first medal retrospectively (2003) to An Garda Síochána (Ireland's Police Force). This was done to facilitate an early presentation in 2004 of the inaugural medal by the then Irish Prime Minister, Bertie Ahearne TD, in Government Buildings. Later in that year the 2004 medal was presented to Admiral Frank Golden MD RNRtd by the flag officer of

the Irish Navy. Nine Ireland Medals have been awarded (2003-2011 inclusive). A joint decision by the RLSS IRELAND Management Committee and Irish Lifesaving Foundation Board of Directors was required for the first three awards, after which the RLSS withdrew and the remaining six medals have been awarded by the Foundation acting alone. In addition to recognizing outstanding work in drowning prevention the medal has generated much valuable publicity (Figure 2).

Originally the medal could be awarded to an individual in recognition of an outstanding rescue but the eligibility criteria were changed in 2007 removing it. This was done in response to a lack of nominations but also in recognition of the growth in prestige of the award through the quality of early recipients. Rescue organizations were first awarded the Ireland Medal in 2007 (Foyle Search and Rescue) and this has proved to be better than recognizing specific single rescue events.

A new medal will be introduced in 2013 as the original stock of medals purchased will have been exhausted. This will result in some changes to the obverse image as RLSS IRELAND no longer has a role and 'Irish' has been deleted from the Foundation's name.

The medal award ceremony was accompanied by a half-day seminar titled the Ireland Seminar at which medal recipients and guests presented papers on various lifesaving topics. This seminar developed over the intervening years and in 2012 the presentation of the 2011 Ireland Medal ceremony will be part of a 3- day conference (www.lifesavingfoundation.ie).

CLUB NEWS

DUBLIN FIRE BRIGADE AWARDED FOR WATER RESCUE SERVICES

IRISH LIFESAVING FOUNDATION AWARDS
THE 2009 IRELAND MEDAL TO DUBLIN FIRE
BRIGADE, REPORTS ANGELA COYLE.

Dublin Fire Brigade was the recipient of the 2009 Irish Lifesaving Foundation Ireland Medal at an award ceremony held in Dublin Fire Brigade's Training Centre on June 19th. Introduced by the Irish Lifesaving Foundation in 2003, the Ireland Medal promotes an awareness and recognition of excellence in lifesaving in Ireland, and by Irish persons or persons of Irish descent worldwide. Between three and four million people lose their life by drowning each year globally. Also, drowning is the number one cause of accidental death for children under 15 years, so it is critical that the great work of those involved in lifesaving is recognised.

DFB was awarded the Medal for the many water rescues performed by its River Rescue Service last year. As well as providing a constant fire and ambulance service, they have trained water rescue units in three locations in Dublin. Rescue boats are moored on the River Liffey close to Tara Street Fire Station and DFB has 70 trained rescue boat crew members. There are over 300 firefighters trained as Swiftwater Rescue Technicians (SRTs), over 1,000 trained in water awareness and approximately 150 trained as Swiftwater First Responders (SFRs). All those trained in water rescue are volunteers, and do not receive any extra salary for holding water rescue qualifications.

EMERGENCY CALLS

DFB responds to approximately 145,000 emergency calls each year in fire, ambulance, land rescue and water rescue situations. Firefighters in Dublin have attended to over 2,000 water related incidents in the ten years since the water rescue units were established, rescuing over 1,000 people from drowning in that period.

Speaking at the award ceremony, Hugh O'Neill, Chief Fire Officer of DFB said that he was accepting the Ireland Medal on behalf of the men and women who made up DFB. The introduction of water rescue units came about when the DFB was being called to water incidents where a person was drowning – the firefighters present were untrained, not equipped and inappropriately dressed for the water situations. However, this did not stop brave



Pictured at the Ireland Medal Ceremony 2010 held at Dublin Fire Brigade Training Centre, Dublin were Hugh O'Neill Chief Fire Officer awarded the 2009 Ireland Medal with Chief Justice Terence Higgins awarded the 2008 Ireland Medal, Third Officer Terry Kearney, Dublin Fire Brigade and Third Officer Greg O'Dwyer, Dublin Fire Brigade. Image by Jason Clarke

firefighters from entering the water in such situations. It came as no surprise when the firefighters agreed to volunteer for the water rescue service. While the bravery of firefighters is often taken for granted, it is always nice to have their courage and devotion to saving lives from whatever source recognised by others.

Meanwhile, the Ireland Medal for 2008 was awarded to Chief Justice Terence Higgins from Australia for his promotion of lifesaving in Australia and in the

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Figure 2: Example of publicity generated by the Ireland Medal.

Ireland Medal Citations

The Ireland Medal is awarded annually *'to an Irish person or organization or to a person of Irish descent in recognition of an exceptional contribution to saving lives from drowning'*. The following are the citations accompanying the awarding of the first nine Ireland Medals.

2003: An Garda Síochána

An Garda Síochána (Ireland's Police Force) was founded in 1922. Few historical records relating to swimming rescues by serving officers exist for the majority of the 20th century. It appears to have been taken for granted by government and public that police officers could be called upon to rescue persons from drowning, as part of their normal duties, and therefore swimming and rescue instruction was part of the recruit training programme.

Late 20th century research has established that, despite the existence of numerous water rescue organizations, members of An Garda Síochána are often first responders to drowning incidents. Recent research shows that approximately 20 police officers enter deep water annually and make swimming rescues, often in extremely difficult circumstances (Figure 3). The majority of those rescued had deliberately entered the water, are young males, and have been drinking beforehand. Gardai usually work in teams and swim in full uniform often displaying great courage and commitment.



Figure 3: Presentation of the inaugural (2003) Ireland Medal to An Garda Síochána by Ireland's Prime Minister Bertie Ahearne.

2004: Admiral Frank Golden MD, PhD

Frank Golden was born and educated in Cork City, Ireland, receiving his medical doctorate from the National University of Ireland (University College Cork) in 1960 (Figure 4). He joined the Royal Navy as a medical officer in the early 1960s, retiring in 1993 with the rank of Rear Admiral. During his naval career he directed the Royal Navy's survival medical research department and was a consultant advisor to the Royal Navy in applied physiology. Always willing to include himself in his ongoing experimental work (once voluntarily spending a week adrift in a life raft on the open sea) he received a PhD

in 1979 from the University of Leeds for his work on the early rewarming of hypothermic casualties. He now acts as a consultant advisor in human and applied physiology at the University of Portsmouth and is a trustee of the Royal National Lifeboat Institute (RNLI) and chairman of its Medical and Survival Committee. Over the years he has written many articles on hypothermia and survival in water, most recently authoring the book *Essentials of Sea Survival* (2002) in conjunction with his University of Portsmouth colleague Professor Michael Tipton. He is the recipient of an Order of the British Empire (OBE), for his work on sea survival; the Gilbert Blane Medal (from the Royal College of Surgeons) for his research into post-immersion death and the Stewart Memorial Prize (from the Royal Aeronautical Society) for his work on the rescue and aftercare of immersion victims.



Figure 4: (Left to right) Admiral Frank Golden (2004 medal), John Connolly (Lifesaving Foundation), and Major General John Pearn (2005 medal).

2005: Professor John Pearn MD, PhD

John Pearn is Professor of Pediatrics and Child Health and Deputy Head in the School of Medicine at the University of Queensland, based in the Royal Children's Hospital, Brisbane. A former Surgeon General of the Australian Defense Force, he commanded the Health Service Branches of the Royal Australian Navy, Air Force and the Army from 1997 to 2000. During his military career he saw operational service in Papua New Guinea, in the Vietnam War and in post-genocide Rwanda. Most recently he served as a pediatrician and tropical medicine physician in post-tsunami Sumatra. He served as National Director of Training for St. John Ambulance Australia from 1989 to 1999 during which time he was Editor – in – Chief of the training manual *Australian First Aid*.

His lifesaving activities go back to the early 1970s. In 1974 he instituted the Brisbane Drowning Study in a groundbreaking attempt to address the serious problem of toddler drownings in Australia. In addition to studying this problem he actively worked for the introduction of safety legislation for home swimming pools. He has published over 50 articles and book chapters on drowning related topics in international medical and resuscitation literature. He was appointed a Technical Lecturer and Examiner with

Royal Lifesaving Australia in 1976. More recently he served on the World Task Force on the Prevention of Drowning for the Amsterdam Drowning Congress and is a member of International Life Saving Federation's Medical Commission and is chairman of its Ethics Commission.

2006: Garda Commissioner Eamonn Doherty

Eamonn Doherty is a native of Buncrana, Co. Donegal. He joined An Garda Síochána in 1943 rising through the ranks to the position of Garda Commissioner (chief of Ireland's police force) in 1987. On his retirement from the Gardaí Eamonn represented Ireland on a European anti-drugs task force for a period of six years. He has also chaired an independent arbitration panel overseeing the drinks industry's code of practice, adjudicating on complaints from the public.

In addition to his many public duties he is patron of The Irish Amateur Boxing Association. Eamonn's first introduction to lifesaving was during his time as President of the Garda Training College when he introduced lifesaving to the curriculum of all Garda trainees. He was appointed chairperson of the Royal Life Saving Society Ireland Region (overseeing the activities of the RLSS Republic of Ireland and Northern Ireland Branches) in the early 1980's, while Assistant Garda Commissioner, and continued in this role on his promotion to Deputy Commissioner and Commissioner until the RLSS was restructured in the early 1990's. Serving police officers perform over 20 swimming rescues annually saving many lives. He chairs the Irish Marine Gallantry and Meritorious Service Award body. In Irish rescue circles Eamonn is best known for his chairing of The Doherty Commission which studied Ireland's Air Sea Rescue Service, producing the Doherty Report which led to the transfer of this rescue service from the Irish Air Corp to The Irish Coast Guard. A consequence of this was the stationing of a rescue helicopters at a number of regional airports in place of the previously Dublin centralized rescue service.

2007: Foyle Search and Rescue

Foyle Search and Rescue (FSR) was founded in 1993 in response to the large number of persons successfully completing suicide by drowning in the River Foyle, Co. Londonderry, Northern Ireland. Since then FSR has helped more than 1000 persons in distress in or near the river. Working with a team of about 40 key volunteers FSR provides 24 hour / 7 day pager response coverage of the River Foyle, River Faughan and waterways around Strabane. Shore Patrols patrol the river walkways and the two bridges over the Foyle between 9pm and 3am, with a fully crewed rescue boat on the river, on Thursday, Friday and Saturday nights. The service has its own permanent base in Prehen and is considering buying a small hovercraft to provide fast easy access to places difficult to reach with their rescue boat.

The Londonderry Sentinel reported in July 2007; *"Foyle Search and Rescue emergency response team volunteers have been called out 25 times since the beginning of the year and unfortunately, have recovered three bodies in the space of the last three months. They have rescued six people from the river who would otherwise have drowned, and assisted in taking a further six people back to safety from the water's edge. They have also rescued a boat with four people on board, which was stranded on rocks off Culmore Point. They have attended a further nine incidents which thankfully did not need any further assistance."* (Figure 5).



Figure 5: Members of Foyle Search and Rescue accepting the 2007 Ireland Medal from Mayor of Waterford City, Counc. Mary O'Halloran.

2008: Chief Justice Terence Higgins AO

The Honorable Terence Higgins AO has been President of the Royal Life Saving Society Australia ACT Branch since 1993, has served as National President of RLSSA (1997 – 2003), after which he served as RLSSA's International Development Liaison Officer until beginning his second term as national President in 2009. He has been Legal Advisor to RLSSA since 1993.

During his first term as National President of the Royal Life Saving Society Australia he presided over a time of unprecedented growth of revenue, which increased by over 500%, and saw close to one million Australians taking part in RLSSA courses annually. He oversaw the development of national sponsorship and fundraising programmes and implemented significant changes to the governance structures of RLSSA which ensured that RLSSA was a driving force in the development and implementation of the Australian Water Safety Plan 1998 – 2003. In 2003 he was elected as the International Life Saving (ILS) Asia Pacific Regional Development Coordinator and interim chair of the ILS Development Aid Commission (2003 – 2004). His mother's great grandfather, Patrick Casey of Co. Westmeath, was transported to Hobart Town for stealing a sack of grain. His father's great grandfather, John Hussey Higgins, immigrated to Victoria from Dublin.

2009: Dublin Fire Brigade

In addition to providing a 365 day fire, rescue and ambulance service Dublin Fire Brigade also has water rescue units based at three locations throughout Dublin City. Rescue boats are moored on the River Liffey close to Tara Street Fire Station and all front line fire engines carry two dry suits for use in water rescue situations. The Brigade has 70 fully trained rescue boat crew, 300 Swift Water Rescue Technicians and over 1000 Swift Water First Responders. All are volunteers and do not receive extra salary for holding water rescue qualifications.

Dublin Fire Brigade responds to approximately 145,000 emergency calls annually. The crews responding to call-outs are fully trained to deal with a fire, ambulance and water rescue situations. In the 10 years since the water rescue units were established fire

fighters in Dublin have attended to over 2000 water related incidents and over 1000 persons have been rescued from drowning.

2010: Patricia Wilcox

Mrs. Patricia Wilcox's introduction to saving lives began in 1966 with her being awarded First Aid and General Nursing Certificates by the South African Red Cross Society. She qualified as a Swimming Teacher in 1975, as a Lifesaving Instructor in 1989 and as a Senior Lifesaving Examiner in 1990. Following her appointment as an examiner she began working in Soweto as a volunteer teacher and examiner. In her own words

"things were quite volatile in Soweto then and travel was not always easy, no road signs, they had been removed to confuse the security forces. General lighting was provided by high security lights, no regular street lights. One of the lifeguards would meet us outside of the hospital and travel with us to the pool. This first visit was quite an eye opener for me as I had never been to a 'township' before. Europeans were still discouraged from going in although permits were no longer needed. I encountered shock and fear for my safety by most people who became aware of what I was doing."

Over time she became aware that there were full and part-time job opportunities for qualified lifeguards in Johannesburg and she began to focus more and more of her swimming and lifesaving training towards achieving this goal for her 'youngsters'. In 1997 she retired early from school teaching to concentrate on her lifesaving work. Since 1990 she has trained hundreds of young unemployed swimmers as lifeguards thereby giving them a job and a position of status, as lifeguards are considered valuable members of the South African community.

In addition to her work in Soweto Patricia has served as Lifesaving South Africa's Director of Education and Training and as a member of the Management Board. In these roles she worked on the publication of a new Stillwater Nipper Handbook, new Lifesaving Manual and new Water Safety Booklet. She is a member of the South African Qualifications Authority in the fields of sport, recreation and fitness. For these and her other voluntary work Patricia Wilcox has been awarded the 2010 Ireland Medal.

2011: Professor Linda Quan MD

Professor Linda Quan is a pediatric emergency medicine physician at Seattle Children's Hospital and Regional Medical Center and a professor in the University of Washington's Department of Pediatrics (Center for Child Health, Behavior and Development). She has been involved in research and the development of guidelines at a national and international level in pediatric resuscitation, emergency medical services and drowning. She has spent a large part of her career conducting research into of drowning, drowning prevention, and pediatric resuscitation for which she has received many awards. She combines research, outreach and advocacy to stop drowning and is a recognized world leader in drowning prevention, with a special emphasis on open water such as lakes and rivers.

Summary

The Ireland Medal is accepted as a prestigious lifesaving award by the world lifesaving community. This is primarily due to the achievements of medal recipients who, in accepting the award, have donated some of their personal prestige to it. Although nominations primarily come from members of the Lifesaving Foundation any person may nominate a candidate for the medal by contacting the Foundation (lifesavingfoundation@ireland.com). In addition to generating valuable publicity an unexpected major consequence of the introduction of the medal has been the growth of an annual technical conference based in Ireland.

References

- Connolly, J. (in press). A Historical Overview of the Lifesaving Foundation's First Decade. In: Avramidis, S. (Ed). *International Aquatic History Symposium and Film Festival*, Ft Lauderdale, USA: International Swimming Hall of Fame.
- Connolly, J. (n.d.). Private notes from RLSS IRELAND minute books taken in preparation for 1904-2004 centenary year ceremonies. Unpublished paper.
- Pearsall, R. (1991). *Lifesaving: the story of The Royal Life Saving Society: the first 100 years*. David & Charles, Newton Abbot, UK.
- Royal Life Saving Society Commonwealth (2012). Official website. Retrieved on 09/01/2012 from www.rlsscommonwealth.com
- Royal Life Saving Society Ireland (2004). Annual Report. Retrieved on 09/01/2012 from www.rlssireland.com.
- Royal Life Saving Society Ireland (2012). Official website. Retrieved on 09/01/2012 from www.rlssireland.com
- Royal Life Saving Society UK (2012). Official website. Retrieved on 09/01/2012 from www.lifesavers.org.uk
- Sri Lanka's Swimming Project (2012). Official website. Retrieved on 09/01/2012 from www.icanswimcanyou.com.

A Historical Overview of the Lifesaving Foundation's First Decade

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Abstract

The aim of this educational article is to provide an overview the first decade of a charity called 'The Lifesaving Foundation'. The Foundation is based in Ireland, has an international membership, supports the development of lifesaving in over 6 countries in Africa and Asia and promotes research into drowning. It aims to reduce the number of drowning deaths worldwide by conducting drowning related research, organizing an annual research conference, publishing safety information and financially supporting water safety related projects.

Key words: lifesaving, lifeguarding, water safety, drowning.

This article aims to make a historical overview of the Lifesaving Foundation's first decade. Particularly, attention will be given to its beginning, its early days, and its 'growing up' stage. This last stage includes the operation and description of several interesting projects such as the Sri Lanka Women's Swimming Project, the Lifeguard Training Project, drowning research, the Ireland Medal ceremony, the lessons learned by all these activities. Finally the Foundation's present and future will be overviewed.

Beginning

In 1999 the Royal Life Saving Society Branch in Ireland (RLSS IRELAND) received a request, from the then RLSS Commonwealth Secretary General John Long, to provide financial and technical support to a small lifesaving organization based in Mombasa, Kenya, as a 2000 CE millennium project. The Branch agreed to do so but due to "African time" delays it was early in 2002 when two pool lifeguard trainers travelled to Mombasa to train a group of pool and beach lifeguards for employment in local hotels. An internationally recognized lifeguard qualification would not only enable the individuals concerned to gain employment but would also boost the local tourism industry. The project was very successful and was followed by a further request in 2003 to send beach lifeguard trainers as a German tour group had indicated that it would include Mombasa as a holiday destination in its brochures if beaches attached to hotels were lifeguarded. RLSS IRELAND was not in a position to financially support a long-term project but a small group of members were interested in continuing so a new independent organization was formed. It was incorporated as The Irish Lifesaving Foundation and registered as an independent charity in 2003. Plans were made to return to Kenya but the security situation deteriorated greatly and the initial project collapsed (RLSS IRELAND, 2004).

The Early Days

Shortly after the initial approach by John Long, RLSS IRELAND began collecting good quality swimwear, towels, goggles, rescue equipment and lifeguard clothing from its membership and forwarding it to the RLSS Commonwealth head quarters for distribution around the world. A large quantity of clothing and equipment was transported to England for the 2001 RLSS Commonwealth Lifesaving Conference. Delegates from developing nations were invited to fill their suitcases with whatever they could bring home with them. Many international airlines were helpful and ignored weight

limits when approached by the RLSS. Unfortunately all of this stopped when oil prices rose but by 2008 the Irish Lifesaving Foundation had supplied clothing and equipment to lifesavers in Antigua, Barbados, Botswana, Gambia, India, Kenya, Lesotho, Mauritius, Mozambique, Seychelles, St. Lucia, Uganda, Zambia and Zimbabwe. Shortly after the Commonwealth Conference requests were received to financially support projects in Lesotho and Uganda. The foundation board considered both requests and in the light of the initial Kenya experience decided that in future it would have at least two projects ongoing at any time in case one collapsed.

In Lesotho a church charity, The Lesotho Durham Link, was providing water safety education in schools in response to a serious national drowning problem. A number of large dams had been constructed there to sell fresh water and electricity to South Africa and a nation used to mountain streams and rivers was adjusting to living with large deep bodies of water. Money and equipment (including Lesotho's first mountain rescue stretcher) were supplied and arrangements made to send representatives to Lesotho to upgrade lifesaving skills. A bonus training opportunity arose by way of Lifesaving South Africa hosting the 2003 RLSS Commonwealth Lifesaving Championships. Two Foundation representatives, John Connolly and Brendan Donohoe, travelled to Durban where the organizing committee generously permitted the use of the championship pool to train a group of Lesotho lifesavers. After the championship the training moved to Lesotho, where a new national lifesaving organization, The Royal Lesotho Lifesaving Association, was founded with His Majesty King Letsie III as patron. Funding was then provided on an ongoing basis to support schools based water safety training (Figure 1; The Lifesaving Foundation, 2012).



Figure 1: Schools based water safety training in Lesotho. Note. Reproduced with permission from the Lifesaving Foundation.

Two requests were received from lifesavers in Uganda. The first was to fund water safety radio advertisements aimed at boat users on the great lakes and the second the provision of a motorcycle for transport within Uganda. The radio advertisements were funded as thousands of persons drown annually on Lake Victoria and Lake Albert (Wiebenge, 2010). The motorcycle request was unsuccessful but it pointed to a distance problem that would arise again and again over the intervening years, i.e. the localization of training due to a lack of resources within developing countries.

The incorporation of the Irish Lifesaving Foundation as a not-for-profit company and a registered charity in Ireland in 2003 was accompanied by a great disappointment and a key learning event. A young family, visiting Kenya, had drowned in Mombasa Port in 2002 whilst taking part in a holiday boating outing. Although the sinking of their craft had been observed there was no rescue service in the port and they drowned before help could be organized. During the 2002 World Congress on Drowning in Amsterdam the matter was discussed with both International Lifeboat Federation and Royal National Lifeboat Institute (RNLI) representatives and an outline plan was devised. It was agreed that the Foundation would purchase a second-hand inshore lifeboat from RNLI, the International Transport Federation would arrange to have it transported to Mombasa and RNLI would provide free training and accommodation at its UK training centre for the first Ugandan crew-members. Tragically it all fell apart due to a local inability to house and maintain the lifeboat and its associated equipment. Lifeboats are high maintenance rescue items and are costly to run. As mentioned previously the Kenyan economy had collapsed and local funding was not available. The proper storage of training and rescue equipment would become an ongoing problem for the Foundation.

Growing Up

From 2003 to 2009, in addition to collecting and distributing swimwear and equipment to organizations in developing countries, the Foundation funded various projects. These included a number of school and youth organization based water safety education projects in Lesotho, Sri Lanka, Uganda, Kenya, and Tanzania. A Lifeguard Training Project supported the training of lifeguards in Gambia, South Africa, Kenya and India. Lastly, a number of water safety leaflets (**Figure 2**) were published which are freely available on the World Wide Web (The Lifesaving Foundation, 2012).

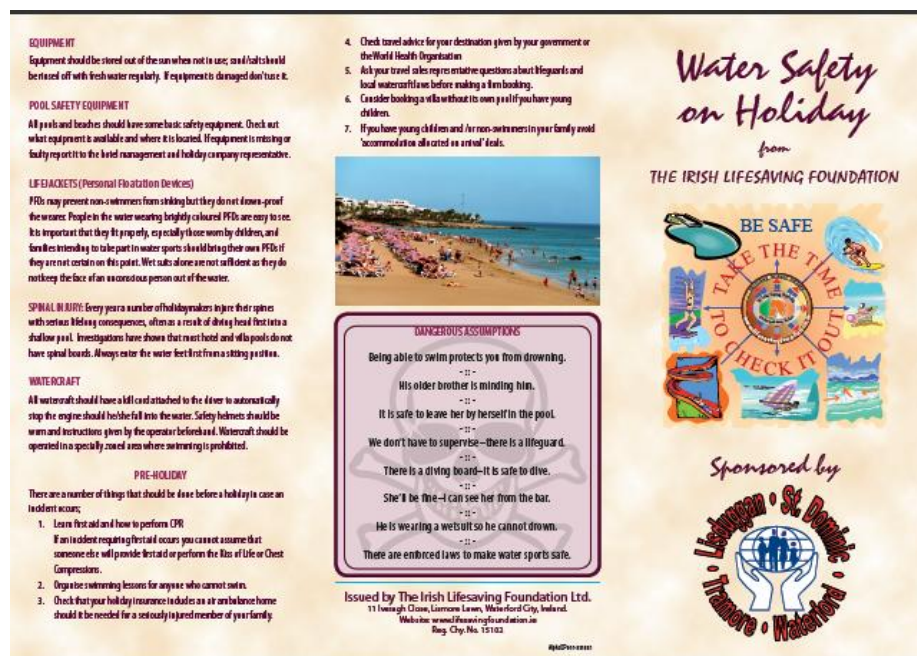


Figure 2: Holiday Water Safety Leaflet. Note. Reproduced with permission from the Lifesaving Foundation.

In addition to the above activities, four key projects stand-out and are worthy of separate description. These are the Sri Lanka Women's Swimming Project, the Lifeguard Training Project, drowning research and the Ireland Medal.

The Sri Lanka Women's Swimming Project

The Sri Lanka Women's Swimming Project was founded by Mrs. Christina Fonfe in the aftermath of the 2004 Asian tsunami (Fonfe, 2010). In many countries, for cultural reasons, females are not taught to swim and during the tsunami the majority of those who died were females or children, consisting of up to 80% of all casualties in some regions (Crawford, 2005). This project aims to reduce drowning deaths by using female swimming teachers to teach women and teenage girls to swim and then showing them how they in turn can teach their own children and families to swim. The best pupils receive further training as swimming teachers with internationally recognized qualifications (e.g., Swimming Teachers' Association; **Figure 3**) and are employed as such by the project and pool operators with micro-economic benefits. The Foundation has been one of the projects main supporters assisting in paying the salaries of the core swimming teachers. The project is now incorporated as a charity in the United Kingdom (Sri Lanka Women's Swimming Project, 2012).



Figure 3: Swimming Teachers' Association newly qualified teachers in Sri Lanka Note. Copyright: Christina Fonfe and Mike Fonfe. Reproduced with permission from Sri Lanka Women's Swimming Project.

The Lifeguard Training Project

Mrs. Pat Wilcox's involvement with lifesaving in Soweto, South Africa, began in 1990, when access to the township became possible following a change of government (**Figure 4**). Her initial role was as a swimming instructor and lifesaving/lifeguard examiner but it soon expanded into her training unemployed young swimmers as lifeguards for employment in public and private pools, in nearby Johannesburg. Foundation members first met Pat during the 2003 Commonwealth Championships but it was not until a 2005 visit to Soweto with her (prior to travelling on to Lesotho) that the Foundation became aware of this aspect of her work. Money is always a problem for her, even though she works on a voluntary basis, as the youths have little or no money to pay for anything, including their assessment fees. The Foundation has financially supported this project since 2005. Through her dedicated work hundreds of youths have been given a career by way of their obtaining a vocational qualification that gives them both a job and status within their community. The Foundation has also supported the training of lifeguards in India, Gambia and South Africa.

Drowning research

Foundation members have always been conscious of the value of their promoting research into lifesaving matters and have written and presented papers at various national and international conferences. Having a close association with the United Kingdom members were aware that there are often many differences in the causes of drowning deaths, even in close neighbors such as Ireland and the United Kingdom. In Ireland a high percentage of accidental deaths take place in the sea whereas in England they occur in inland waters, due in some part to the fact that Ireland's major cities are all coastal while England's are inland (Connolly, 1984). Foundation aid recipients have been encouraged to carry out local research into the causes of drowning and to develop their own national award schemes based upon their research. The majority of lifesaving organizations in developing countries often adopt award schemes produced for other nations because training materials are easily available or have been supplied to them free of charge or at a subsidized price. Sometimes there are valid reasons behind decisions to adopt another's award scheme. Lesotho, for example, is surrounded by South Africa and if a lifeguard is seeking employment it is essential that he or she hold a South African award but Lifesaving South Africa is mainly focused on surf safety (its national problem) whereas Lesotho is land-locked and has still water and river crossing drowning problems. The Foundation has tried to encourage local drowning research in developing countries with a view to the creation of water safety programmes targeted on local problems. It has had little real success with this project due to the low level of official reporting on drowning deaths in developing countries where it has a low priority (The Lifesaving Foundation, 2012).



Figure 4: Pat Wilcox (far left) overseeing lifesaving and lifeguard training in Maseru, Lesotho. Note. Reproduced with permission from the Lifesaving Foundation.

The Ireland Medal

The Ireland Medal was introduced in 2004 as a joint project between the Irish Lifesaving Foundation and RLSS IRELAND to mark the centenary of the RLSS branch and the birth of The Irish Lifesaving Foundation (RLSS IRELAND, 2004). A gilded sterling silver medal is awarded annually *'to an Irish person or organization or to a person of Irish descent in recognition of an exceptional contribution to saving lives from drowning'*. The medal has been awarded 9 times (Connolly, in press) and now has a high status within lifesaving

circles due to the quality of recipients. It generates valuable publicity for lifesaving and frequently draws attention to hidden aspects of drowning such as Foyle Search and Rescue proving, by reducing the number of annual drowning deaths in their local river from over 30 to 3, that it is possible to successfully prevent suicide by drowning (Wilson, Smyth & Connolly, 2010). The medal ceremony is accompanied by the Ireland Seminar, a free public seminar addressed by lifesaving experts present at the award ceremony (Figure 5).



Figure 5: Admiral Frank Golden (2004 Ireland Medal recipient) speaking at the 2005 Ireland Seminar. Note. Reproduced with permission from the Lifesaving Foundation.

Year	Name	Country
2003	An Garda Siochana (Police Force)	Ireland
2004	Admiral Frank Golden RNRtd	United Kingdom
2005	Professor John Pearn MD	Australia
2006	Garda Commissioner Eamonn Doherty	Ireland
2007	Foyle Search and Rescue	Northern Ireland
2008	Chief Justice Terence Higgins	Australia
2009	Dublin Fire Brigade	Ireland
2010	Patricia Wilcox	South Africa
2011	Professor Linda Quan	United States

Table 1: Ireland Medal recipients 2003-2011. Note. Taken with permission from the Lifesaving Foundation.

Lessons Learned

The Foundation board of directors has been on a steep learning curve during the first decade of activity. The charity works with some wonderful lifesavers but has also been seen as a source of 'easy' money by others with less charitable motives. The following is a selection of lessons learned.

1. Lesson 1: *Allow for a long lead in time with projects.* The fact that even with modern fast communication it takes a long time to get any project moving. Even when the contact person is very efficient the people they have to deal with may seriously slow down a project.
2. Lesson 2: *There is a need to avoid peripheral costs.* Once the charity engaged with lifesavers in a developing country a request would often be received to pay for someone to leave it to attend an international meeting, conference or competition.
3. Lesson 3: *Lifesavers in developing countries often have great difficulty accounting for monies received, especially with the production of receipts needed for an audit.* Even when local lifesavers understand the need to do so those they deal with often don't issue receipts. Photographic evidence and independent corroboration of projects is required.
4. Lesson 4: *Monies donated are sometimes not used for the purpose agreed beforehand.* An organization or important members of it may have different priorities to those of the Lifesaving Foundation. Support has been withdrawn from a small number of organizations because of this problem. An example is money donated to send a lifesaving trainer to a course in a neighboring country to upgrade his qualifications was used by a more senior officer in the organization to fund an international trip under the pretext of his attending the courses as an observer. Partner organizations are provided with organizational grants which may be spent as they see fit. Many large charities send their own full-time employees to oversee projects but the Lifesaving Foundation is too small to do this economically. Although the foundation has funded the salaries of employees of other organizations it currently has no employees of its own; all officers are volunteers who pay their own general expenses.
5. Lesson 5: *Everyone needs an income they can live on.* When monies are donated to cover personal expenses it is understandable that individuals with low incomes want to keep as much of the available expenses for themselves as possible. There is no dishonesty involved but it can lead to one key individual trying to do too much. Sometimes the best able people, those you have built a good working relationship with, are promoted or change jobs and are no longer available to complete projects. When we work with committees it is usually done through a representative person who speaks for the committee. This can lead to tension within committees. One important thing we have to remember continuously is that low income people cannot pay costs themselves in advance and then wait for reimbursement. Often organizations cannot find the money needed to set up a bank account and we have to send a small initial donation via Western Union for this purpose. Afterwards all monies are sent by bank transfer into an organization's bank account.
6. Lesson 6: *National swimming organizations often swallow up embryonic lifesaving organizations and have different priorities from those of the original organization.* The Lifesaving Foundation does not fund competitive swimming projects but is sometimes seen as a source of funding by swimming organizations. For example, on one occasion the Foundation was asked to fund the sending of a leading international competitive coach to train a development squad on the grounds that the swimmers would later train as lifeguards. Similarly, on another occasion monies donated to buy lifeguard uniforms were spent on tracksuits for a national swim team with the justification that after a time they would be given to lifeguards as uniforms.
7. Lesson 7: *Some countries are so large that internal travel is costly and time consuming.* This is a real problem for young national organizations and tends to lead to fragmented development. In one country, in response to numerous requests, we funded the purchase of a second-hand car but the roads were so bad that within 3 months the back axle broke and we realized that we would have to fund repairs on an ongoing basis so we cut our losses. The Lifesaving Foundation is working with the scouting

association in Tanzania in a pilot effort to overcome this problem. Scout leaders and scouts received instruction at a national jamboree in 2009 after which they returned home, throughout their country, bringing the knowledge received with them for future transmission to others locally.

8. Lesson 8: *The correct storage of equipment can be a serious problem.* Many people in developing countries live in small dwellings with little or no storage space for donated equipment. We have found thousands of Euro worth of manikins stored in open sheds. The maintenance of equipment is a linked problem.
9. Lesson 9: *A poor ability to read technical/medical English is a real problem.* When asked if they can speak and read English many people answer positively but they cannot read lifesaving manuals. In our early days we shipped boxes of manuals to African countries only to have them stolen en-route or to find that trainees could not read them. There is a need for comic book style training publications. We attempted to overcome this by publishing in booklet format the “*International Open Water Drowning Prevention Guidelines*” (Irish Lifesaving Foundation, 2010).
10. Lesson 10: *International aid organizations often have difficulty understanding the scale and scope of the world drowning problem.* The Foundation has applied for funding from governmental organizations in support of some projects and been unsuccessful because international aid is mostly compartmentalized and what we do (as lifesavers) isn’t medical enough for medical aid, educational enough for school aid and usually not enough people drown at any one time for disaster aid. When we applied for funding in support of our lifeguard training project it was unsuccessful and deemed to be discriminatory because we had made ‘being able to swim’ as a prerequisite for entry to the training project. The reply received stated that most people in Africa cannot swim and therefore we were discriminating against this non-swimmer majority by insisting that candidate lifeguards be able to swim.

The Present

The Lifesaving Foundation board of directors undertook a major review of the organization and its projects in 2009. A realization that little of what had been achieved in the first nine years had any real long-term benefit led to a determination to ensure that future projects would have some aspect that would or could continue if support was withdrawn. Many projects were allowed to wind down and will not be renewed in their past format. Support was maintained for the Sri Lanka Women’s Swimming Project, the Lifeguard Training Project, the Ireland Medal, suicide by drowning prevention and a number of research projects in preparation for the World Drowning Prevention Conference 2011 in Vietnam (World Conference on Drowning Prevention, 2011). A major decision was taken to introduce some compulsory element of research into all projects and to publish the research conclusions. A trial research conference was organized in Dublin in 2010 to which a small number of experienced and published lifesaving researchers were invited along with a small number of novice researchers. The aim was to have those experienced teach the novices how to conduct research and how to present conclusions in a manner that would make them suitable for publication in a journal or presentation at a conference. This was so successful that four novice participants had seven papers accepted for presentation at the 2011 World Drowning Prevention Conference. Finally, it was decided to change the name of the charity from The Irish Lifesaving Foundation to The Lifesaving Foundation as a mistaken impression exists that membership is confined to Irish citizens. The charity has members in 6 countries and consults members on policy matters electronically via the internet and by e-mail in addition to the normal postal service.

The Future - The Lifesaving Foundation

The Lifesaving Foundation will continue as an independent charity with an open international membership and an overarching aim of 'saving lives from drowning – worldwide'. In addition to full membership (€50 annual fee), a new “*Friend of the Lifesaving Foundation*” relationship has been introduced (€20 annual donation), to facilitate involvement by lifesavers from low income countries. The majority of members are active lifesavers but membership is open to all adults. Greater use will be made of the foundation's website (www.lifesavingfoundation.ie), Facebook and e-mail to communicate with members. The foundation's second decade will be more focused and a lot more interesting than its first one.

An annual conference is organized to promote and encourage research followed by the publication of presented papers. To ensure a maximum benefit from available resources the foundation will have a number of specific project areas. A key aspect of projects will be the applicability and transferability of what is taught or researched across national boundaries. These projects are:

1. *Personal swimming survival skills*: The foundation will support research into why persons who can swim drown. What is lacking in their experience, knowledge or training that prevents them from swimming to safety.
2. *Suicide by drowning*: Suicide by drowning is present in every community and looks like becoming a major challenge for lifesavers in the 21st century.
3. *Female swimming instruction*: The Foundation will build on the work of the Sri Lanka Women's Swimming Project with the aim of promoting female swimming instruction worldwide.
4. *Lifeguard Training Project*: The Foundation will continue to financially support the training of unemployed swimmers as lifeguards in developing countries.
5. *Foreign Holiday Water Safety*: Visitors are much more vulnerable to drowning than residents of any area close to water. Research into this aspect of drowning will be supported.
6. *Land based water rescues*: The Foundation will promote research into land based water rescues and the development of water safety programmes in developing countries.
7. *School/Youth based water safety instruction*: Funding will be provided in support of water safety instruction embedded into national education or training programmes in developing countries.

Summary

The aim of this article was to provide an overview of past and present work of the Lifesaving Foundation in Ireland and internationally as well as those planned for the future. Key aspects of new projects will be the transferability of what is learned across national boundaries and the embedding of lifesaving research into projects. An annual lifesaving research conference is organized to promote and publicize research with the proceedings published. Membership of the charity is open to any interested adult worldwide.

References

- Connolly, J. (1984). Drownings in the Republic of Ireland. Unpublished paper presented to the Irish Drowning Conference, Dublin 1984.
- Connolly, J. (in press). A History of the Lifesaving Foundation's Ireland Medal and its Recipients. In: S. Avramidis (Ed). *International Aquatic History Symposium and Film Festival*, Ft Lauderdale, USA: International Swimming Hall of Fame.
- Crawford, P. (2005, December). Undercurrent. *Swimming Times*, 2005, 15.

- Fonfe, C. & Fonfe, M. (2010). Breaking cultural barriers to Asian women swimming. In S. Avramidis & R. Stallman (Eds). *Proceedings of the Lifesaving Foundation's 2010 Research Conference and Ireland Medal Ceremony* (pp. 37-42), Dublin, Ireland: The Lifesaving Foundation.
- Irish Lifesaving Foundation. (2010). International Open Water Drowning Prevention Guidelines. Ireland: Author.
- Royal Life Saving Society Ireland (2004). Annual Report. Retrieved on 09/01/2012 from www.rlssireland.com.
- Sri Lanka's Swimming Project. (2012). Official website. Retrieved on 09/01/2012 from www.icanswimcanyou.com
- The Lifesaving Foundation (2012). Official website. Retrieved on 09/01/2012 from www.lifesavingfoundation.ie
- Wiebenge, S. (2010). A Model for Drowning Prevention in Lake Victoria; A Case Study from East Africa. in P-L Kjendlie, R. Stallman, & J. Cabri (Eds). *XIth International Symposium for Biomechanics and medicine in Swimming, Oslo, 16th – 19th June 2010* (p. 98). *Programme & Book of Abstracts*, Norwegian School of Sports Science, Oslo.
- Wilson, P., Smyth, C., & Connolly, J. (2010). The Success of Foyle Search and Rescue – Suicide Prevention and Rescue in the City of Derry, Ireland. In S. Avramidis & R. Stallman (Eds.) *Proceedings of the Lifesaving Foundation's 2010 Research Conference and Ireland medal ceremony* (pp 48-53). Dublin, Ireland: The Lifesaving Foundation.
- World Conference on Drowning Prevention (2011). Official Website. Accessed on 13/01/2012 at www.worldconferenceondrowningprevention2011.org/

Polish History of Water Rescue

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Abstract

Introduction: Water rescue in Poland has a long and great history. This article aims to provide a short overview of the most remarkable events in its history in terms of water safety and drowning. **Methods:** A literature review of selected books, articles and personal communication with key individuals in the water safety field from Poland were obtained. **Discussion:** Our review revealed that three significant safety-related events in the last 50 years of Polish history - have shaped the current provision of water safety and rescue services in Poland. These are the beginnings of lifesaving at Sandomierz, the establishment of the Emperor's Drowning Men Rescue Association, and the foundation of Volunteer Lifeguard Association.

Key words: lifesaving, drowning, water rescue, lifeguarding.

Water rescue in Poland has had a very long and glorious tradition. It is common knowledge among the lifesaving community in Poland that two Polish towns, Sandomierz and Kalisz, have the longest water rescue tradition. In both of these towns, multiple initiatives had been introduced to aid drowning victims spearheaded by several well intentioned individuals who promoted the idea of helping those in need during an aquatic emergency. The latest water rescue history chapter in Poland has been written by a voluntary organization operating as an association which, in 2012, is celebrating its 50th anniversary. The present day voluntary Lifeguard Association has continued on the traditions of lifesaving first pioneered in Sandomierz and Kalisz. This article aims to provide a short overview of the most remarkable events in its history in terms of water safety and drowning.

Method

A literature review was undertaken to identify sources that would contain landmark events of the lifesaving history in Poland. Such sources were books and scientific training articles, chronicles, press releases, websites and personal communication with key individuals in the field of water safety in Poland who own related archives (WORP, 2012; Slaskie WORP, 2012; Sandomierz, 2012).

The Beginnings of lifesaving at Sandomierz

The first recorded water rescue incidents were attributed to Hieronim Gostomski who was a famous pioneer in this area. This remarkable individual was well-known because of the many important positions he held as well as due to brave actions he had taken. Gostomski was a Member of Parliament for two terms. He was the Governor of Poznań, Walcz, Sandomierz, Gąbin, Warsaw and Grójec. In 1604, this wealthy politician and zealous Catholic, funded for Sandomierz town, a monastery and a hospital in which monks (Jesuits) helped drowning survivors from the Vistula River. For that purpose, they underwent various specialist trainings (e.g. they mastered swimming and punting skills, they also learnt resuscitation techniques). Upon liquidation of the monastery, this responsibility was taken over by the Sandomierz Cathedral (Gwiaździński, 1980; Błasiak, Chadał & Kurek, 2001).

The History of Kalisz: The Emperor's Drowning Men Rescue Association

In the 1890's, in response to continuous efforts of Kalisz activists, and thanks to the support of Kalisz Governor, Michail Piotrowicz Daragan, and the consent of the Executive Board of the Emperor's Russian Rescue Association in Petersburg, the Kalisz District of the Emperor's Russian Rescue Association was established. The statutory responsibilities of the organization included, among others, to provide water safety, rescue drowning victims, and provide help for flood-affected people because this region was very flood prone. A part of organization's responsibility was also giving swimming lessons. The organization's president for many years was Józef Radwan, a lawyer from Kalisz. The name of the Association changed several times (i.e. Rowing Association of Kalisz in 1907; Polish Association of Rowing Societies in 1919).

Evidence of the extent of rescue activity is indicated by the frequent articles in local newspapers (e.g. *Gazeta Kaliska*) whose editor and publisher was Józef Radwan. By 1898, the membership of the Association had reached almost one hundred. An indication of the importance of the Association was that its members included General Adjutant Prince Aleksander Konstantynowicz Imeretyński, a member of the State Council, a Kalisz Governor, and a secret Counsellor of the court, Michail Piotrowicz Daragan (Nowak, Personal communication on 1998). A year after its foundation, the organization owned 8 boats of different types and necessary rescue equipment, its budget was 900 roubles (rouble exchange rate at that time, was almost the same as dollar's, what is more, roubles were coined in gold) – which constituted considerable assets. The Association published a newsletter entitled "*Ratunek na wodach*" ("*Rescue in waters*") in which readers could find information about directions of lifesaving developments and current activities.

Leon Wernic M.D. (author of the 1902 brochure entitled "*Jak ratować tonących*" – "*How to save drowning people*") was a member of the Kalisz Association. The brochure was written in Polish, contained a lot of pictures, and stated in its introduction: "Lack of a manual in the national literature authorizes me to distribute this brochure. It is aimed for all representatives of secular and clerical intelligence, and also for rescue associations or dealing with rescuing people..." This previously unpublished contents described techniques of reviving people that had been saved from drowning. Furthermore, it included descriptions of human organs important from the perspective of drowning process, and also rescue techniques.

The association changed its statutes after 1907 and evolved towards rowing, focusing its main objectives on tasks connected with development of rowing sport. At the same time, helping drowning people and teaching swimming were moved to the background and finally were completely abandoned. (Kalisia Nowa, 1988; Waclaw Nowak, personal communication on 10 January 2012).

Eventually, the Kalisz Drowning Men Rescue Association ceased operation. This happened because the organization was divided into two separate organizations: water rescue and rowing. With time, the head of the water rescue organization could not continue his work because of his age, and there were no people willing to substitute him. That is why the activity of water rescue organization ceased in a "natural way". Another autonomous rescue organization was established 50 years later. The Volunteer Lifeguard Association (in Polish it is called W.O.P.R.) and it has continued the proud traditions of the Association.

The Establishment of WOPR

Water rescue continued to be a critical part of twentieth century Polish life. In 1926, the Polish Swimming Association (established in 1922) founded the Water Rescue Committee with a registered office in Siemianowice. A year after this, the Water Rescue

Committee, acting on behalf of the Polish Swimming Association, proclaimed June 29 – A national Lifeguard's Day.

In 1952, at the discretion of Dymitr Bogajewski, water rescue became the part of the curriculum of Warsaw University Physical Education faculty. Bogajewski was a lecturer at the Academy of Physical Education in Warsaw – later on, he became the Head of Swimming Department at that Academy. All the necessary materials used for the education were collected and developed by Mieczysław Witkowski. Mieczysław Witkowski was a pioneer of the modern water rescue idea in Poland. The first course for Water Rescue Instructors was organized in 1958 in Katowice.

Drowning statistics in 1958 were alarming. In total, 1,133 people drowned, and one in every four of the fatalities were children and teenagers under 18 years of age. It was then that the need of establishing legally and organizationally separate rescue body appeared. This need triggered an idea of founding Voluntary Life Guard Emergency Service. Tadeusz Olszański, an active swimming sports supporter, has been regarded as a “godfather” of WOPR because he was a multiplicator of water rescue ideas (he was a sport editor and active swimming official). He was also an initiator of modern water rescue organizational structures.

The issue connected with establishment of a homogenous organization whose main message would be saving human beings' lives caused serious debate and publicity in the mass media. On April 11, 1962, the Chair of the Executive Committee for Physical Education and Tourism issued a Decree No. 74, pursuant to which WOPR was established as an organization – its temporary regulations were also agreed on. In the aftermath of this decision, Water Rescue, quite soon, was included as a part of the PE schools curricula across the whole country.

A milestone in the organization's history was the first meeting of the WOPR Parliament that was held from November 6 to 7, 1965 in Poznań. During that meeting, the basic directions and scope of activity were established. The central committee comprised of 12 representatives and was referred to as the Chief Headquarters. This group was supposed to ensure that all formal requirements allowing the organization to acquire legal entity and be entered to the Register as a specialist formation were met. Upon preparation of the statutes and submission of the whole documentation, WOPR gained legal entity by the decision of the Ministry of Home Affairs and Administration, on October 9, 1967. The subsequent four years (1965 – 1969) were the period of high activity in the areas of organization, propaganda and education. Standardized materials were prepared that included a set of regulations, training programs, and also organization development plans for 1969 – 1973. During the First National WOPR Session that was held on April 20, 1969 in Warsaw, new activity directions were defined. Also, the role and responsibilities of the association and its local branches were determined. The elected authorities were called the Executive Management. Since that time, special emphasis has been placed on the training activity (for all levels of qualifications – including instructor's qualifications).

Since January 1, 1970, new water rescue levels were introduced (instead of previous 1st and 2nd class water rescue instructors). The new levels included: junior life guard, life guard, senior life guard, WOPR life guard instructor and WOPR instructor / lecturer. The latest changes in training programs were introduced in 2010.

Nowadays, WOPR is an organization of thousands of people – lifeguards of all levels. Based on the organization's statistics, in 2011, WOPR gathered 75 590 members in 182 field units. The majority of the members were the people who had undergone a course for (at least) the lowest water rescue professional level. Only 4 070 were volunteers without any kind of water rescue certificates. According to the information from the Chief Statistical Office, almost 400 people died in water accidents (the data as

of August 31, 2011). WOPR has its branches, probably in all Polish towns. Finally, the Volunteer Lifeguard Association is a member of the International Life Saving Federation of Europe.

Summary

The water rescue history of Poland is a tribute to the initiatives of strong-minded individuals and the efforts of volunteers at community level, as well as the support at government level. Recognisability of the WOPR logo and respect for the work of lifeguards inspires the young generations to participate in lifeguards courses. Acquisition of proper qualifications and life saving, in general, for the majority of young Polish people represents an honour and privilege. Schools educating future Physical Education teachers, emergency response staff, fire-fighters, policemen and other services have introduced water rescue-related subjects to their curricula.

References

- Błasiak, P., Chadaj, M., & Kurek, K. (2001). *Water rescue Manual*. Warszawa, Poland: Prószyński i s-ka.
- Gwiaździnski, J. (1980). *Water rescue without secrets*. Warszawa, Poland: Sport i Turystyka.
- Kalisia Nowa. (1998). Miesięcznik społeczno kulturalny. *The Monthly Social and Cultural Publication*, 47(4), 6-7.
- Sandomierz. (2012). *The history of water rescue in Poland*. Retrieved 10 January 2012 from http://www.sandomierz.pl/gpiwopr/historia_ratownictwa_na_wodach_w.htm
- Śląskie WOPR. (2012). *The outline of water rescue history*. Retrieved 10 January 2012 from <http://www.slaskiewopr.pl/index.php?m=-1|12>
- Wernic, L. (1902). *How to save drowning people*. Kielce, Poland: Agencja Wydawniczo – Reklamowa EMES.
- WOPR. (2012). History of Rescue. Retrieved 10 January 2012 from http://www.wopr.waw.pl/viewpage.php?page_id=2

Resistance, Persistence, Providence: Swimming Science, David Armbruster, and the Odyssey of the Butterfly Stroke

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Abstract

Introduction: In modern times, the swimming world showcases its most flamboyant competitive stroke, the butterfly. Whereas backstroke, breaststroke, and freestyle swimming have been present in competitive swimming from the start of aquatic history, the butterfly was long absent. What is now known is that the development of the stroke evolved on the shoulders of the scientific curiosity and laboratory-like experimentation of its fundamental proponent, the American aquatics maestro, David A. Armbruster. Few if any of those who witness the stroke today know of its evolutionary history. It is a history underscored: (1) by resistance to the stroke from “swimming conservatists,” (2) by the persistence of a “believer” who demonstrated with science, the speed benefits of the stroke, and (3) by ultimate providence gained through trial and error, modification and remodification, and strong arguments based on scientific approaches. **Method:** This is an historical examination of the evolution of one of competitive swimming’s four strokes, the butterfly. The time honored methodological approach to reporting history is pursued here, that is, an analysis of both primary and secondary source documents (including photographic material) to produce an historical narrative. **Results:** The findings of this research tell us that the storied University of Iowa swimming coach, David Armbruster, influenced and guided by his Iowa colleague, Professor Charles H. McCloy, physical education’s most celebrated scientific researcher of the first half of the twentieth century, undertook the first scientific and practical experiments leading to the development of what the swimming world knows today as the butterfly stroke. Over a 30 year quest of challenge, experimentation, debate, and modification, Armbruster’s efforts to refine the stroke, separate it from its ancestor, the conventional breaststroke, and gain its acceptance in both the NCAA and Olympic swimming programs, were finally rewarded when the butterfly stroke entered the NCAA and Olympic Programs in 1955 and 1956, respectively. This is the story of resistance to the stroke by the swimming world’s conservatists, Armbruster’s tenacity and persistence in dealing with both the science of his quest and the voices of his antagonists, and finally, how his persistence was rewarded by providence—that is, acceptance of the stroke into the program of swimming competition worldwide. **Discussion:** The results of this study provide a chapter in swimming history heretofore unknown and unreported. Therefore, the study is a contribution to the body of knowledge upon which the history swimming rests. **Conclusion:** The study concludes that had it not been for a scientifically gifted swimming coach, David Armbruster, influenced heavily by a scientific mentor, Charles McCloy, the development of the butterfly stroke as we know it today, might never had occurred.

Key words: swimming, history, butterfly.

Focus on that word *Odyssey* for a moment. In modern usage the word is most often used to describe a long journey of sorts or wanderings marked by notable diversions. Well, what we have here is an expanded odyssey, if you will, since the evolution of competitive swimming’s most flamboyant stroke took much longer to reach a conclusion than did Odysseus’s wanderings recited by the blind poet in the *Odyssey* so many centuries ago. Indeed, in the minds of many, and especially in the consciousness of the butterfly

stroke's principle advocate, University of Iowa swim coach David Armbruster, the journey featured as many pitfalls and perils in the turbulent seas of the international swimming world as Odysseus might have encountered on the storm-tossed waters of the Aegean and Ionian Seas on his homeward voyage to Ithaca. In reality, from beginning to end, it took almost a quarter of a century for butterfly to gain membership in what heretofore had been only a trio of firmly established competitive strokes. From origin to emergence as an autonomous stroke, butterfly's evolution was marked by measures of xenophobia, entanglement, controversy, suspicion, frustration, angst, argument, and gnashing of teeth, not to mention other disorders, most of them having to do with conflicting semantic interpretations of various rules books. Like Homer's *Odyssey* of old, the butterfly's evolution was also peopled by personalities, some well-known, some less-known, but each a significant player in the evolutionary drama of competitive swimming. It is the purpose of this investigation to examine this interminably lengthy journey, and why it took so long for the butterfly stroke, as we know it today, to nudge its country breaststroke cousin aside and ultimately emerge autonomously as swimming's fourth and final, and perhaps most exciting, competitive stroke.

But rather than begin at the beginning with the genesis of the stroke, we would like to begin at its culmination, at least in an Olympic sense, and then work backwards and then forward again, not an entirely inappropriate approach, come to think of it, for an examination of the tangled on-again-off-again history of the butterfly stroke.

Referring initially to an ending or culmination that took place fifty years ago might appear odd, but in the historical perspective of competitive swimming, half a century might pass for, say, the equivalent of a light year. The time is 1956, early December, a time of year when the last vestiges of spring begin to collapse into summer "Down Under." The place is the Olympic Park Swimming stadium at the Games of the XVI Olympiad in Melbourne, Australia. Two moments: the 200 meter butterfly final for men, and then, a few days later, the 100 meter butterfly final for women. The principles: William Yorzyk and Shelley Mann, both of the United States. They would become the very first gold medalists in history's first Olympic butterfly event. In many ways, ironically, the culmination of both Yorzyk's and Mann's achievement in Melbourne parallels not only Odysseus' fraught-filled voyage in general, but the longer evolution of the butterfly stroke in particular. Let's explore the two shorter odysseys first.

William Yorzyk

Bill Yorzyk's appearance in the final of the 200 meters Butterfly, not to mention his inclusion on the 1956 American Olympic team itself, is one of the more wondrous stories in sport. At the age of sixteen, six years before the Games of the XVI Olympiad, he enrolled in Springfield College in Massachusetts, an institution that traditionally tested all incoming freshmen for swimming capability. Since he could hardly swim at all, Yorzyk was declared "a water-risk" by the college. That ironic classification, as well as his failure to make the football team, quickly led him to the pool where he began to practice in an effort to pass Springfield's swimming requirement.¹ While honing his beginner skills in Springfield's cramped 20-yard pool at the McCurdy Natatorium in the Pratt Gymnasium, he caught the eye of legendary Springfield swim coach Charles "Red" Silvia. As it so often happens in the eye of a great swim coach, Silvia saw something promising in Yorzyk, who was, for all intents and purposes, a beginning-swimmer. The promise, obviously, lay not in Yorzyk's skills but rather in his drive, endurance, and perseverance, three characteristics, by the way, that enabled him, in time, to survive 20,000-yard workouts in the McCurdy pool, yardage that was unheard of in that day. As Yorzyk recalls, "I lived at the pool, swam between classes, and became totally waterlogged."² Under Silvia's guidance, Yorzyk directed his less than modest ability toward a quest that

eventually would mark him as one of the nation's truly best swimmers. He began his journey modestly enough by winning his Freshman Numerals in swimming.³ From then on, his competitive swimming career was meteoric. By the end of his junior year he improved enough to gain NCAA (National Collegiate Athletic Association) All-America status in both the 1500 and 440 yards freestyle events. In his senior year he was co-captain of the Springfield team as well as a repeat All-America in the 1500 and 440 Freestyle. In addition, and most auspiciously, he also achieved All-America in the 200 Breaststroke. He, like most other breaststrokers of that day, used the hybrid butterfly-breaststroke technique. That aside, however, his venture into the breaststroke event landed him smack-dab in the middle of the butterfly-breaststroke revolution that was occurring at that time. Following the 1954 NCAA Championship Meet, he and "Red" Silvia journeyed to Yale for the 1954 National AAU (Amateur Athletic Union of the United States) Indoor Swimming Championships, where he observed for the first time a swimmer using the dolphin butterfly stroke. That swimmer was Buddy Baarcke. "As soon as I saw [Baarcke's] swim I knew I could swim that stroke," recalls Yorzyk. "We came home from Yale and started work on the fly. It came easily for me, and we were off and away. 'Red' had me swim in every water carnival he could find, and I ended up with a total of 23 American records at all distances."⁴ In addition to becoming one of the earliest practitioners of the dolphin butterfly stroke as we know it today, Yorzyk was also the first to use, exclusively, the every-other-stroke breathing cycle, as well as a much longer and flatter stroke that eventually put an end to the early dominance of those swimmers, called undulators, who advocated an accentuated undulating and thus vertical style of stroke. All in all, it can be said that under Silvia's tutelage, he became not only an Olympic champion, but a multiple world and American record holder as well. And, it is worthwhile to note that, together, Yorzyk and Silvia produced the sport of swimming's first teaching film on the mechanics of dolphin butterfly. And finally, the echo we would like to leave you with here is that Silvia's influence, both in the pool as well as in life, led William Yorzyk, not only to international swimming fame and top-rank Olympian status, but to a distinguished career as a doctor of medicine as well.

Shelly Mann

If Yorzyk's story is compelling, then Shelly Mann's is equally so. Long before Mann led an American sweep of the medals in the 100 meters butterfly event for women at the Melbourne Games, she had to conquer a much more formidable foe. Stricken by polio at the age of six, she suffered through a paralytic childhood that lingered always on the ominous edge of whispers of legs freezing and encasement in iron lungs, while waiting for life to return to her legs. At the age of ten, following four years of therapy, including routine regimens of both passive and active water therapy, she regained the use of her legs. She did not learn to swim, however, until she was eleven years old. By the time she was twelve she began to swim competitively. Two years later at the age of fourteen, she became a national champion, and a year later than that, a multi world record holder. She was nineteen when she won the gold medal in the 100 meter Butterfly at Melbourne. Her training leading up to the Olympics was almost "déjà vu all over again," as Yogi Berra frequently reminds us. While a student at American University in Washington, D.C., she joined the Walter Reed Swim Club and trained in much the same environmental circumstances that had dictated her polio therapy years earlier. The tepid water of the hospital's restorative therapy pool was hardly an ideal venue in which to train for international competition, but Mann persevered to become one of the brightest and most glamorous stars in the galaxy of American women swimmers in the early and middle 1950s. But it was a singular moment at the 1956 U.S. Olympic Trials at the Brennan Pools in Detroit, Michigan that transformed her awkward hybrid butterfly-breaststroke

technique into the newer, more efficient butterfly-dolphin stroke that would eventually place her on the victory podium in Melbourne. That singular moment came courtesy of Bill Yorzyk and “Red” Silvia. Using Yorzyk as a demonstrator, Silvia tutored Mann in the new stroke. It was slow going at first. Yorzyk’s recollection is that Mann had some difficulty shaking loose from the restrictions of the hybrid butterfly-breaststroke and grasping the rhythm of the two kicks per arm cycle that Silvia had taught him over time.⁵

Yorzyk’s and Mann’s butterfly victories were the only gold medals American swimmers won in Melbourne, and while they did not generate an abundance of coverage in either the American or Australian press, they did manage to achieve considerable notice in international swimming circles. Each, of course, established a starting place for Olympic records in the butterfly event. The following Olympiad would illustrate how quickly speed and efficiency in the stroke had evolved, especially in the men’s 200 meter event, as demonstrated by Mike Troy’s 1960 world and Olympic record swim of 2:12.8 in Rome. By 1964, the world record had been lowered by an additional six seconds, and by the 1972 Olympics, Mark Spitz was flirting with and bragging about breaking the magic two-minute barrier, which, incidentally, he narrowly missed doing in Munich. We all know where it stands today, half a century post-Yorzyk. For the record, Michael Phelps’ spectacular swim of 1:51.51 at the 2009 World Championships in Rome, almost 25 seconds faster than Yorzyk’s world mark of 2:16.7, established half a century earlier. Twenty-four plus seconds in fifty years doesn’t seem like a lot of time, accentuating, it seems to us, an appreciation for Yorzyk’s beginning standard.

Into the Night: The Odyssey Begins

Well, that’s a quick look at the tip of the ice-berg. Let’s examine the bulk of the berg, the part, or in this particular case, the two distinctive parts of the butterfly stroke, one part that embraced one’s view above the surface of the water, and the other that lurked not only beneath the surface, but in the scrambled text of the rules books as well. Coaches, swimmers, and swimming aficionados, possessing a sense of history especially, are well aware that the butterfly arm stroke evolved from the breaststroke, at least in part, we hasten to add. Most, however, are not aware of the exact progression of the two components of the stroke that eventually combined to make up the signature movements of the stroke we recognize today. And because there are two components, each with a different genesis, and each evolving at different times, it would be best, we think, to deal with each separately before finally merging them into the fluid, efficient, speed-grafted stroke we know today here in the early 21st century.

Flying Fish, Flying Finish, and Finally, Flying Breaststroke

The over-the-water recovery stroke, called initially the “flying fish,”⁶ first began to appear in breaststroke swimming near the middle of the 1920’s, a decade of athletic endeavor historically referred to as “The Golden Age of Sport.” It was not, however, the golden age of swimming. Johnny Weismuller’s presence aside, the rules were often couched in ambiguous semantics, thus offering swimmers ample opportunity to employ measures of both interpretation and gamesmanship. The exact genesis of the over-the-water recovery is not known, but there are references in the literature to breaststroke swimmers, one in particular, who exploited a vulnerable moment in the rules by using a “flying breaststroke turn,” and then, a short time later, a “flying finish” in breaststroke races.⁷ The vulnerability centered on the interpretation of a singular word in the language governing the recovery phase of the stroke in both the pre-1935 FINA (Fédération Internationale de Natation Amateur) and NCAA (National Collegiate Athletic Association) rules for swimming breaststroke. The common rule, prior to 1935, stated that the arms had to be simultaneously *pushed* forward on recovery. The language never addressed through what

or which plane the arms had to be pushed forward. Keep that thought clearly in mind as we attempt to untangle the somewhat muddled genesis of the overarm recovery.

What few references there are to initial use of the “flying breaststroke turn” refer to German breaststroker Erich Rademacher, who reigned through much of the decade of the 1920s as the world record holder for the event. Despite his supremacy in the stroke, Rademacher was denied participation in Olympic competition at the Olympic Games of 1920 and 1924. Germany, of course, was banned from those Games for their role in World War I. Despite those limitations, Rademacher was able to establish, re-establish, and, in effect, lay consistent claim to the world breast stroke record during most of the decade of the 1920s. By the time he arrived in the Netherlands as a heavy favorite to win the gold medal in the breaststroke event of Amsterdam’s 1928 Olympic Games, he had lowered his world record to 2:48.0. There, the tall, mesomorphic Rademacher was upset by Japan’s Yuoshiyuki Tsuruta.⁸ There is little documentation as to whether Rademacher used “flying breaststroke” turns in his silver medal swim against Tsuruta. But at least one source⁹ states that he did not, suggesting perhaps that Rademacher didn’t want to flirt with possible disqualification, as there was still plenty of controversy regarding the legality of the technique. Tsuruta’s victory, Japan’s only gold medal swim in the Games, by the way, would foreshadow a Japanese team performance that would clearly dominate Olympic swimming four years later at the 1932 Games in Los Angeles. Footnoting all this is the fact that, in the end, Rademacher did gain some measure of satisfaction at Amsterdam; he was the stand-out goal-keeper of Germany’s gold medal water polo team.

In 1926, two years before the 1928 Games, Rademacher made several appearances in the United States, mostly in New England and New York, where his unorthodox style attracted both the notice and criticism of American breaststrokers and the press alike. He was the kind of swimmer who looked for loopholes or blind spots in the rules for improving time and therefore his world record accomplishments. He was not, for instance, above using a subtle scissors kick in the middle of the pool in some races, especially those that were not tightly officiated. He became clever at it; so much so, in fact, that he was rarely disqualified, probably, in part, because he was the world record holder at that point in time.¹⁰ And because he was the world record holder, perhaps European favor and influence turned a blind eye to his momentary use of the over-the-water arm recovery as well. While Rademacher’s scissors kick was clearly in violation of the rules, the legality of his “flying breaststroke” turn appeared to boil down to an interpretation of the word “pushed.” Rademacher’s argument lay in the fact that once the pulling phase of the stroke had been completed the recovery phase could hardly be called anything but a push, whether it was done beneath or above the water in recovery, an argument that was ultimately put to rest several years later by an American rules initiative that changed the word *pushed* to *moved*.¹¹

Regardless of all that, the technique fascinated a small circle of American breaststrokers. One of them, perhaps the first American emulator of the “flying breaststroke” turn, was Walter Spence, the oldest of the famous swimming trio of Spence brothers from British Guiana, and the first brother ensemble ever enshrined in the International Swimming Hall of Fame (1967). Walter came to the United States in 1923 at the age of 22 and immediately began training at the Brooklyn Central YMCA. He became an over-night sensation in the breaststroke and three-stroke medley (breaststroke, backstroke, and freestyle). By 1925, he was the holder of ten world records as well as several National AAU records. Almost a decade later, at the “tender” age of 34, while swimming for Rutgers University, he became a three-time NCAA champion and the National Collegiate Record holder in the 100 freestyle with a time of 51.6, a record that endured for another decade until the indomitable Alan Ford of Yale, in 1944, took the record under 50 seconds flat for the first time in the history of the event in a 25 yard

pool.¹² The authors of these remarks, by the way, share one thing in common with Alan Ford, but it has nothing to do with their comparative 100 yard freestyle times; they all graduated from Balboa High School in the Panama Canal Zone, albeit a few years apart, but only a few, we might add.

The second of the Spence brothers, Wallace, six years younger than Walter, was a breaststroker *par excellence* himself. Joining Walter at the Brooklyn YMCA, where both trained and coached, Wallace became one of the finest breaststroke swimmers in the world as well as a leading exponent of the fly-away technique on turns and finishes.¹³ He also became a world-class backstroke swimmer. Indeed, when younger brother Leonard joined Walter and Wallace in New York, together they formed the most powerful three-stroke medley relay team of that era. Wallace swam the backstroke, Leonard the breaststroke, and Walter the freestyle. If we were to examine the roots and subsequent metamorphosis of the individual medley and the medley relay, we would obligatorily begin with the saga of the Spence brothers. That footnote aside, between them, the Spence brothers dominated the breaststroke event for more than a decade. But it was a singular moment in 1933 at the Brooklyn YMCA that wrenched the “flying breaststroke” turn and finish away from its momentary use and put in place the idea of an extended over-the-water recovery breaststroke or butterfly-breaststroke, as it eventually came to be called. The light on the shore of this particular sea, however, would take roughly twice the length of Odysseus’s odyssey to reach.

Late in 1933, early December to be exact, at a time when everyone was trying to beat the Spence brothers, Henry Myers, a young, enterprising three-stroke medley swimmer from Brooklyn’s St. George Dragon Swim Club, reasoned that if the rules for swimming breaststroke invoked no penalty for *how* the arms were *pushed* forward on recovery and, in addition, were not penalizing breaststrokers for using the fly-away recovery on turns and finishes, then why couldn’t a swimmer extend the use of the over-the-water arm recovery for a longer period of time, for that matter, the entire duration of a breaststroke race, or in Myers’ particular case, the first leg (breaststroke) of a three-stroke medley event. And, what better moment to pursue his inspiration than against Wallace Spence himself, the reigning national champion in the three-stroke medley. And, why not in Wallace’s home pool at the Brooklyn YMCA, to boot. In a letter Myers wrote in October 1940 to Yale University’s legendary swimming coach, Bob Kipthuth,¹⁴ Myers related how he had beaten Wallace Spence by more than ten feet in the opening breaststroke leg of a preliminary heat in the three-stroke medley, an event that would ultimately be called the individual medley. Myers employed a continuous over-the-water arm recovery throughout the breaststroke leg. Attesting to Myers’ performance were his coach, W.W. Robertson, along with Jack Mellon, manager of the St. George Hotel in Brooklyn where the Dragon Swim Club trained, and Ed Kennedy, Columbia University’s swim coach and godfather to both NCAA and Interscholastic swimming during the 1920s and 1930s. Myers elaborated to Kipthuth how irate Wallace Spence became, claiming that Myers was swimming freestyle instead of breaststroke and, further, chastising him “to learn how to swim breaststroke properly.”¹⁵ Indeed, Spence withdrew in protest from the final of the event. Neither the spectators nor the officials knew what to make of this sudden turn of events. In the end, the officials conceded that the spirit of the rules aside, Myers’ innovation had the strict letter of the rules on his side. Myers, by the way, was deservedly proud of his “creation” and credited the innovation with saving breaststroke from extinction as a popular spectator race. “It [is] uninteresting to watch a breaststroke race,” he wrote to Kipthuth, “In time, the old breaststroke would have become as *passé* as the English sidestroke, as far as racing is concerned. A butterfly-breaststroke race is a very exciting race to watch. The splashing and violent arm-motion seem to be quite conducive to spectator enthusiasm.”¹⁶ In short order, Myers interested two teammates,

Lester Kaplan and Paul Friesel, in the stroke and each of them began to use it in a number of 100 yard breaststroke races. Within a month, both had become familiar enough with the technique to make a try at breaking the existing world record of 1:06.8 for 100 yards of breaststroke, conventional or otherwise. The attempt took place in January 1934 at the City College of New York's 20-yard pool, predecessor of the Jeremiah T. Mahoney pool in place today. Kaplan narrowly missed the record by swimming 1:07.4. Friesel was close behind. Both improved their personal best breaststroke times by more than three seconds by using the "fly-away" recovery exclusively.¹⁷ Word of Myers' innovation, as well as Kaplan's and Friesel's success with the over-arm recovery technique, spread rapidly. Within a year, many of the leading breaststrokers in the world, including the Spence brothers, would use, either intermittently or exclusively, the fly-away recovery in breaststroke, and especially during the opening phase of what much later came to be called the individual medley.

The rapidly expanding use of the over-arm recovery ultimately prompted the NCAA to change the word *pushed* in the breaststroke recovery rule (Rule IX) to the word *moved* in order to provide greater latitude in interpretation of the rule, accommodating, it would appear, the new and speedier recovery technique.¹⁸ European rules makers reluctantly embraced the new technique, a reluctance, by the way, that tended to preview their subsequent and rigid two-decade refusal to tamper further with the oldest, most historical, and, by European standards at least, the stroke most cherished of all competitive strokes. Indeed, a few years later, they would turn a deaf ear to another proposed innovation, one that would have completely eradicated orthodox breaststroke as a competitive stroke. We will discuss that horrifying and controversial proposal, at least to Europeans, shortly.

So far as the rules books were concerned, the wording of the breaststroke rule remained relatively static up to and including the early part of the decade of the 1950s. For more than two decades, then, there simply was no reference to *in what manner or through what plane* the arms had to be *moved* simultaneously forward on recovery. The irony, of course, is that the whole issue of over-the-water arm recovery appeared to balance on a singular word that took more than seven years of debate to ultimately and officially alter the rules for swimming breaststroke. In retrospect, the *pushed* versus *moved* factor in the breaststroke recovery rule became a critical moment so far as the development of at least half of the butterfly stroke is concerned.

And, so, we come to the end of the genesis of the over-the-water, fly-away, so-called butterfly-breaststroke, which leads us to John Herbert Higgins. Following a decade of gold medal 200 meter breaststroke dominance by the Spence brothers (Walter from 1925-29, Wallace in 1930, and Leonard from 1931-35), at the 1936 National AAU Indoor Swimming Championships, performances, for the most part featuring the over-the-water arm recovery stroke on the turns and at the finish, Johnny Higgins, a young swimmer from the Olneyville Boys Club in Providence, Rhode Island, wrested the AAU title away from Leonard Spence, who unknowingly at that time was suffering from tuberculosis and would be hospitalized in a sanitarium within a year of his showdown with Higgins. Higgins' contribution to the evolution of the stroke was rooted in his physical ability to swim the 100-meters breaststroke and, later, the 200 meters breaststroke with the over-the-water arm recovery from start to finish. Indeed, in February 1936 he became the first breaststroker ever to set a world record using exclusively the over-the-water arm recovery in what later came to be called the Butterfly-Breaststroke. His time was 1:10.8 for 100 meters.

Several months later at the 1936 U.S. Olympic Trials, held at the friendly and familiar confines of the Rocky Point Pool in his hometown of Providence, Rhode Island, Higgins established a new American and world record of 2:44.1 for the 200-meter

breaststroke. A month later than that while intermittently employing both a conventional and butterfly arm stroke, he finished fourth in the finals of the 200 meters breaststroke at the Berlin Olympics.¹⁹ He can be seen at various moments in Leni Reifenstahl's historic film documentary, *Olympia*, "flying away" in an outside lane, well behind Japan's gold medalist, Tetsuo Hamuro, who swam to victory using the orthodox style of breaststroke.²⁰

In the evolutionary rear view mirror of the stroke, then, progressively featuring over-the-water arm recoveries on turns, then finishes, then ultimately for an entire breaststroke race, from all of that, rose the idea or notion, at least, of what would eventually evolve into a new and exciting event called Butterfly. Seemingly, only the dolphin kick was missing. In truth, the dolphin kick wasn't missing at all. It was alive and well and undergoing experimentation at the University of Iowa pool, but that's Part II of this story, a segment in the saga of butterfly that would take much longer to gain acceptance than the relatively shorter historical scenario of the over-the-water arm recovery. In total, official acceptance of an autonomous butterfly stroke would take almost three decades, from its true genesis in the mid-1920s to its acceptance as an individual stroke more than a quarter of a century later. Between times, the odyssey of butterfly was fraught by storm and strife as the over-the-water arm recovery gradually nudged orthodox breaststroke recovery aside and, then, at a snail's pace, crept toward autonomy, not only as an individual stroke, but ultimately as part of the fabric of other events as well, namely the individual medley and, of course, the medley relay.

It is important to remember at this point, that at no time during the two-decade use of the butterfly-breaststroke style was the event ever really documented or referred to in the various rules books, as anything other than breaststroke, despite the 1956 revisionist machinations of the NCAA, which arbitrarily, it appears, removed all NCAA champions in the 200 breaststroke between the years 1935 and 1955 and placed them in what can only be described as a mythical 200 butterfly event for those years.²¹ We use the word mythical because butterfly was *never ever* listed as an event (Rule 1) in the *NCAA Swimming and Diving Guides* before 1955. Nor was it ever mentioned in the language pertaining to the rules for swimming breaststroke (Rule IX) before 1955. In addition, a close examination of the *Guides* from 1935 through 1955 reveals that the *Guides* never once listed a result for a butterfly event for any year preceding the 1955 Championship meet, nor did they list an All-America in a butterfly event before 1955.²² Indeed, the word *butterfly* never even appears in the *Guides* until 1955, where and when it was posed initially as part of the heading for the breaststroke rule (Rule IX).²³ As an aside, we think there's a case for holding the NCAA accountable for their arbitrary action for many reasons, only a few of which we have mentioned here.

But, for the moment at least, put that annoyance aside, and while you're at it, put the recovery phase of the butterfly stroke aside as well, because that hullabaloo really had little to do with either the origin or the originators of the kicking and integrating phases of the stroke. Those gentlemen are David A. Armbruster and his swimmer-research-associate, Jack G. Sieg.

David A. Armbruster and Mister Sieg

David Armbruster was the head swimming coach at the University of Iowa for forty-two years (1916-1958).²⁴ As early as 1932 he had gained recognition as one of the swimming world's leading stroke innovators. He became, in short order, a guiding and steady hand on the tiller of both the NCAA Advisory Committee as well as its Rules Committee, on which he served for more than two decades. In 1938 he was elected president of the College Swim Coaches of America (CSCA). In addition to being one of America's most successful swimming coaches, he was a visionary, a man of intellect and insatiable

curiosity, and an extraordinary scientist as well. To put things in a “Science of Coaching” perspective, it is important to know that in the first half of the 20th Century three of the leading so-called sports scientists in the country were swimming coaches: Armbruster at Iowa, Kiphuth at Yale, and T.K.Cureton at Springfield College. They would be succeeded by a series of “latter day” scientific saints, among them a disciple of Armbruster’s, former Iowa graduate student James “Doc” Counsilman, who would become not only a legendary swim coach at the University of Indiana and a United States Olympic Team swimming coach (1964/Tokyo and 1976/Montreal), but also the leading voice in the science of swimming in the second half of the 20th Century. Two others of note were the previously mentioned Charles “Red” Silvia at Springfield College and, later, Ernie Maglischo, both clinical types of coaches, who advocated a bio-kinetic approach to coaching technique. Silvia’s work with the eventual 1956 Olympic butterfly champion, Bill Yorzyk, and their collaborative production of the first teaching film on the “new butterfly,” as well as Counsilman’s and Maglischo’s books on the bio-mechanics of swimming,²⁵ made giant contributions to the sport of swimming.

But if Armbruster influenced Counsilman, who himself influenced numerous others, including some in this very room, then who mentored Armbruster? It was perhaps providential that much of Armbruster’s tenure at Iowa coincided with the towering presence of one of the world’s leading 20th century exercise scientists, Professor Charles H. McCloy.²⁶ McCloy’s specialty was the analysis of motor movement, an area of scientific observation that did more than merely pique Armbruster’s curiosity. Inspired by McCloy, and the systematic methodology of scientific analysis, Armbruster’s work has provided us with some of the most important insights into the science of swimming.

Whereas McCloy’s primary laboratories were the gymnasium, the track, and the athletic field, Armbruster’s laboratory was, of course, the swimming pool. His primary instruments of measurement were the stop watch and the moving picture camera. As early as 1928, a date which marked the beginning of his twenty-year study of “The Science of Swimming,” Armbruster was filming his swimmers on top as well as below the water.²⁷ In this particular pursuit, he was guided in part by the Japanese, who also used underwater photography to diagnose stroke mechanics, a technique that led ultimately to Japan’s nearly complete domination of the men’s swimming events at the 1932 Olympic Games in Los Angeles, including, we might add, both a gold and silver medal finish in the 200 meter breaststroke.²⁸

Insight, innovation, and the never-ending pursuit of increasing mechanical efficiency, became the cornerstones of Armbruster’s experimental research and the resultant contributions to the way we swim and, yes, the rules we swim by. When the over-the-water arm recovery in breaststroke began to evolve, Armbruster was drawn to the “fly-away” technique as an obvious way to lower time in the awkward breaststroke. And while he tinkered with streamlining the underwater pull phase of the stroke, his primary contribution to the evolution of the stroke related to the kicking phase and, eventually, the coordination of a completely revolutionary kick with the over-the-water arm recovery stroke.

“Kissing the Boys Goodbye”

There was a popular saying in the 1930s in reference to speed and the part it played in athletic performance. American sportswriters were fond of writing, and the public became equally fond of saying, “kiss the boys goodbye,” when it came time to rhapsodize about the speed of two of the decade’s, perhaps the century’s, most sensational speedsters. The first was Seabiscuit, the unlikely but legendary California racehorse and darling of the racing set from coast to coast, whose bursts of speed set him apart from most of the great race horses of that era, indeed, of racing history in

general. Seabiscuit's sudden surge down the stretch of arguably "the greatest horse race ever," against War Admiral at Pimlico in 1939, perhaps best personified the popular saying of the day. The other speedster was Jesse Owens, the wondrous "Buckeye Bullet" from Ohio State University, whose exploits both at OSU and at the 1936 Berlin Olympic Games remain legendary even today. In that dark decade of the 1930s, the American sporting public needed heroes to soften their sorrows and, more often than not, speed became the common factor in the adoration of sport personalities who personified quickness best.

The dawn of the Depression found Armbruster engaged with the early component parts of his career-bent study on the "Science of Swimming."²⁹ The cornerstone of his scientific philosophy was to improve speed in swimming. Speed was what mattered most in his experimentations with stroke mechanics. He reasoned early on that increases in speed could most effectively be achieved by overcoming, by degree, the various obstacles that the nature of the sport presented to its participants, namely, the density of water, the bulky shape of the human body and its abducted appendages moving against the resistance of water, and the turbulence that body movement of any kind generated in water. What we might call today "streamlining," became the thrust of his experimentations with mechanics and especially so with breaststroke, since it was the slowest and most unnatural stroke and thus the most bio-kinetically unsound of the three competitive strokes. In short, he was looking for a way to "kiss the boys goodbye" in breaststroke.

It was evident that the refinement of the so-called fly-away recovery had speeded up the stroke significantly, but its lack of timing or synchronization with the unwieldy wedge, or whip, or round, or circle kick, as the orthodox breaststroke kick was called at one time or another, placed an acute physical demand on a swimmer's endurance. This abbreviated domino effect acted in concert to impede the overall efficiency of the stroke. Clearly, the answer lay in the elimination or renovation of the retardant action of the orthodox breaststroke kick and the subsequent development of a kicking phase that would be more efficient, more powerful, and more harmonious, from a functional standpoint, with the fly-away recovery. In retrospect, the development of the new kick evolved much more quickly and with far less trauma than did Armbruster's twenty year crusade to influence the rules and rules makers to nullify the orthodox breaststroke kick and replace it with a new and speedier kicking action.

All that aside, experimentation with a "new kick" began with the arrival of Jack Sieg at the University of Iowa in the fall of 1932. Sieg was a journeyman sprint freestyler at best. In fact, his competitive career at Iowa was marked mostly by relay swimming, which, by the way, culminated with his anchor leg on Iowa's national champion 400 Freestyle Relay at the 1936 NCAA Championship meet at Yale University. That golden moment aside, Sieg's most significant value to Iowa, to Armbruster, and to the science of swimming, as it turned out, lay not in sprint freestyle but rather his playful fetish for underwater fish-tail kicking around the Iowa pool.³⁰ Sieg's fish-tail kicking was done initially as a lark, on his side, in an imitation of a fish. But the movement neither escaped Armbruster's notice nor, most importantly, his memory of an encounter he had experienced twenty years earlier with perhaps the Century's first swimming guru, a Canadian named George Corsan, Senior.

Meet Mr. Corsan: Godfather, Guru, Giant, and Genius

George Corsan, a Canadian by birth, proved over the first 25 years of the 20th century to be the single most important person to popularize swimming in North America. His treatise, *At Home in the Water*, published in 1910,³¹ was one of the earliest book-length

publications in our literature on swimming. In addition, in his role as “Professorial Aquatic Consultant” to many American colleges of Physical Education, he became a mentor to some of America’s leading intercollegiate swim coaches in the first-half Century. Bob Kiphuth of Yale, Matt Mann of Michigan, T.K. Cureton at Springfield College, Mike Peppe at Ohio State, and Armbruster himself were only a few of the many swim coaches influenced by Corsan and his thoughts about swimming technique.

Corsan was first and foremost an instructor of stroke. Although he was known for his career-long affiliation with the YMCA and scouting movements, both in Canada and the United States, he was also instrumental in the development of swimming programs featuring the implementation of mass instruction techniques for troops in World War I training camps. The legacy of his contributions to the sport includes his expertise and interest in natatorium design, mass methods of swimming instruction, the implementation of drills designed to eliminate fear-of-water, as well as teaching techniques that taught beginners the crawl stroke initially rather than the cumbersome and difficult-to-coordinate breaststroke. His countless articles and books, lectures and clinics, generated for Corsan world-wide recognition as well as universal acceptance of his theory and practice of swimming instruction over the first quarter of the 20th Century. Beyond the currency and legend of all that, is his signature work, *The Diving & Swimming Book*, published in 1924, a volume that remains a valuable resource for teachers and coaches even today.³² The International Swimming Hall of Fame honored Canada’s George Corsan Sr.’s life-long contribution to the sport of swimming by inducting him into ISHOF in 1971.

Armbruster’s chance meeting with the ubiquitous Corsan at a swim carnival in Toronto in 1911, led not only to a discussion of what Corsan at the time called the “fish-tail kick” but a demonstration of it by Corsan as well.³³ And so it was, perhaps, at that precise moment in time that the seeds of dolphin kicking were sown in Armbruster’s mind, even if they did take more than twenty years to flower. Of course, there was no thought or talk of butterfly in 1911, or in 1921, or in 1931 or even in 1941, for that matter. Both Corsan, initially, and later, Armbruster, envisioned the idea of the fish-tail kick as a possible alternative to the four and six beat freestyle “flutter kick” that was popularized and refined in the opening two decades of the century by Charles Daniels and Duke Kanhanamoku, and, in the 1920s, by the inimitable Johnny Weissmuller. In light of that alternative kick idea, however, it’s interesting to note here that almost a century later, the fish-tail kick, later called the dolphin kick, has become a standard underwater kicking technique for both freestyle and backstroke swimmers during the under water phase of both starts and turns. That genesis aside, however, more than half a century would pass before the dolphin kick would gain exclusivity as the only kick that could be used when swimming butterfly.

Armbruster’s conversation with Corsan in 1911 regarding the fish-tail kick lay fallow for more than two decades in the inner sanctum of Armbruster’s mind as he busied himself with the challenges of building a program at Iowa and launching his scientific studies on swimming. Early in 1933, however, he began to focus on the development of Sieg’s “fish-tail” kick as a possible alternative to the unwieldy orthodox kick in breaststroke. The first step was to position Sieg’s fish-tail kick on the breast, since the rules specifically forbid any lateral tilt of the body. Secondly, he began to experiment with various kicking patterns, all of which were filmed both on top as well as under the water. Initially, one and three beat kicks were tried, but were eventually discarded in favor of a two-kick repetition to each arm stroke and accompanying recovery. Everything became dependent upon rhythm rather than “streamlining” at this point in time. The “streamlining” came later. Sieg’s progress under Armbruster’s tutelage was steady and proved promising. His feedback to Armbruster on the ease or lack thereof of

movement was critical to the stroke's development; their work together became incessant. Experiment after experiment, photo session after photo session, time-trial after time-trial resulted in Sieg shaving whole seconds of time over distances of 40 to 200 yards. An excerpt from the original edition of Armbruster's book, *Swimming & Diving*, provides us with a narrow but graphic view of his work with Sieg:

*"In the historical breaststroke kick, one unit of force is exerted intermittently, while in the Dolphin (fish-tail) kick, force is being exerted continuously, with no lost efficiency of effort or movement in relation to propelling force. The kick is [in effect] streamlining the legs in the breast stroke kick. The result of this kick is amazing and [generates] tremendous speed. A comparison of the times recorded over various distances substantiates the above statement. The speed trials were made by Jack Sieg, the co-originator of this kick."*³⁴

Distance*	Fish-tail kick	Regular breaststroke kick
40 yards	:21.3	:23.5
100 yards	1:04.1	1:09.0
200 yards	2:29.0	2:37.0

Table 1: Jack Sieg's Speed Time Trials. Note. *The speed trial times above were made in Iowa's 20 yards pool.

1934 to 1937: The Dolphin Breaststroke Scenario

It is important to note that Armbruster's early references to the new kick almost always referred to it as the "fish-tail" kick, but by 1934 he began to identify it, in both conversation and research notes, as the "dolphin breaststroke kick." There was absolutely no mention of a "dolphin butterfly kick" at this particular point in time. And therein, it appears to us, from this rather smug view called hindsight, lies the major obstacle to what could have been a much earlier acceptance of the dolphin butterfly as an autonomous and fourth competitive stroke. If Armbruster had couched the dolphin kick in language introducing the idea of an entirely new competitive stroke, instead of attaching it to the idea of altering, yet once again, the historically-oriented breaststroke, we might have seen the introduction of what we know today as the butterfly stroke by the mid-1930s instead of the early 1950s. Regardless, Armbruster embraced high hopes for the inclusion of the new kick in breaststroke swimming, which, he thought, "had the potential to surpass the backstroke in speed, thus becoming the second fastest of the competitive strokes."³⁵

While Armbruster hoped that the new dolphin breaststroke would ultimately catch on internationally, he aimed his initial efforts of acceptance, quite naturally, at his colleagues, the American college swimming coaches. In March 1935, at the NCAA Championship meet at Harvard University, Armbruster and other members of the NCAA Rules Committee gathered on the deck of the Harvard pool for an exhibition of, what Armbruster termed then, the Dolphin Breaststroke.³⁶ His demonstrator, of course, was Jack Sieg. The committee members were impressed with the demonstration but failed to agree on any alteration of the college rules to include yet another variation of swimming breaststroke. Undaunted, Armbruster continued to press the issue. The following month, April 1935, in a lengthy article in the *Journal of Health and Physical Education*, Armbruster framed his narrative with photographs, enhanced by five silhouette drawings reproduced from moving pictures, of Sieg demonstrating different phases of the stroke.³⁷ It is an important document in framing the evolution of the butterfly stroke,

despite the fact that its reference point is dolphin breaststroke and not dolphin butterfly. Armbruster's prosaic description and graphic depiction of the stroke demonstrated the posture of the dolphin breaststroke almost exactly as the dolphin butterfly stroke appears today:

*"This stroke may best be described as resembling the crawl stroke except that instead of recovering and pulling the arms alternately they are recovered and pulled through the water simultaneously. In the kick, similarly, instead of "fluttering" the legs up and down alternately, they are "fluttered" up and down simultaneously."*³⁸

Armbruster understood that a schism existed between the swimming progressivists from the United States and the traditionalists from abroad, particularly in Europe, so far as tinkering with the stroke and subsequently the international rules.³⁹ In his 1935 article, he prefaced his remarks with a statement of purpose: "Our purpose," he wrote, "is not to discard the old breast stroke [completely], [it still has use] as a utility stroke, but merely to offer this new type of stroke for exploitation as a competitive racing-speed stroke."⁴⁰ On the other side of that coin, of course, lay the Armbruster innuendo that orthodox breast stroke should be put to rest as a competitive stroke. That aside, and as it is with coaches who evolve into biomechanical scientists, Armbruster's intention here was to modify the breaststroke in such a way that it would simply become more efficient and thus, most importantly, faster. Speed was what he was after, and speed became the resultant focus of his devotion, energy, thinking, and innovation towards overhauling the most cumbersome and thus slowest stroke in competitive swimming.

Armbruster's 1935 article was followed two years later by another appeal to the NCAA swimming body in the form of an even lengthier article published in the "Educational Section" of the *1937 NCAA Swimming & Diving Guide*.⁴¹ That piece, entitled "The New Dolphin Breast Stroke on Trial," reiterated the case for renovating the breaststroke by calling for the legalization of the new dolphin breaststroke kick. To buttress his argument, Armbruster presented a series of views on how other competitive strokes, namely freestyle and backstroke, and even the English sidestroke, had evolved sensibly over time by trial and error. He argued that radical changes in the breaststroke had already occurred, changes that had resulted in significant increases in speed. Most of this speed, of course, was the result of the increasing popularity and subsequent use of the over-the-water arm recovery, and to a lesser extent, various and sundry attempts to shorten, or streamline, the ponderous conventional kick. He chided the International Rules Committee for their procrastination in responding to various requests for change. "Competitors want speed," he wrote, "and this stroke is the only one of the competitive strokes left that is not, so to speak, streamlined in its entirety."⁴² His premise was to articulate the renovation of the arm stroke with the dolphin kick, thus completely ridding the stroke of its awkward and resistant forward line of progress. Clearly, Armbruster had a vision, even if it did not include the idea or creation of an entirely new competitive stroke called butterfly.

So far as the "old" butterfly-breaststroke was concerned, it almost met its demise a year later in October 1938. Following an animated discussion, the FINA Executive Bureau "supported by four votes out of seven to prohibit the fly-away arm recovery in the breaststroke event. However, since alterations to the technical rules required a two-thirds majority before adoption, the motion was declared not carried."⁴³ Thus, the seemingly short, happy life of butterfly-breaststroke was allowed to limp on into the 1940s. At that October 1938 meeting, by the way, the FINA Bureau did manage to agree on something. Adding insult to Armbruster's injury, they unanimously resolved to make the definition of the breaststroke kick more precise by adding language to the rule that

specifically *prohibited* up and down movements of the legs in the vertical plane, thus slamming the door shut in the face of his argument for a new “dolphin breaststroke” style. One wonders what the fate of conventional breaststroke would have been if FINA had passed on Armbruster’s dolphin-breaststroke style. Would orthodox breaststroke have been retired as a competitive stroke, or would it have been instantly resuscitated in a purely conventional frame and thus complete the quartet of competitive strokes we have in place today? Given European influence and favor, the latter appears most likely. The scenario, then, that might have evolved in the late 1930s could have been a program of events that included not only the four strokes we have in place today, but the probable addition of a four-stroke individual medley and medley relay. But, alas, that posture of strokes, sadly, would take more than fifteen years to realize.

The “A” and “B” Strokes

Well, the traditionalists eventually won out, despite Armbruster’s prodding and continued lobbying through the 1940s for change in the breaststroke rules to accommodate the dolphin kick. And so the “butterfly-breaststroke,” as it became almost exclusively called, except in the rules books, fluttered and sputtered on through the 1940s. There is little doubt that the cancellation of two Olympiads (1940 and 1944) contributed to a general malaise or indifference, if you will, so far as addressing any international rules reform was concerned. By the time the Olympic Games resumed in London in 1948, without the Japanese and Germans, all eight finalists in the 200 breaststroke employed the fly-away recovery with an orthodox breaststroke kick, a phenomenon that accelerated, however slow it might have been, the idea of separating the breaststroke into two events by the time of the 1952 Olympics in Helsinki; an orthodox breaststroke event limited to an underwater recovery of the arms with a conventional breaststroke kick, and a separate event called butterfly-breaststroke that would feature an over-the-water recovery of the arms with a conventional breaststroke kick, a style that most breaststrokers had been using for almost two decades anyway.⁴⁴ The latter would be a 100 meters event for women and a 200 meters event for men. Many coaches and rules makers from countries around the world, even some in Europe, favored the idea of separating the two strokes, but the chaotic circumstances of Olympic matters following World War II prompted IOC President Sigfrid Edström to turn a “thumbs down” to the possibility of any additions to Helsinki’s Olympic program of events. This fact, of course, dealt a death knell to the possibility of staging two separate breaststroke events. FINA, however, did make a distinction in the rules for swimming each variation of breaststroke, including the option of using one stroke or the other in the breaststroke event. One style was labeled “A,” or orthodox/conventional breaststroke; a second style was labeled “B,” or butterfly-breaststroke.⁴⁵ Of amusing significance is the fact that FINA forbid alternate use of the two strokes in any singular race, with heats, semi-finals, and finals considered as separate races, a rule, by the way, which was discarded a few years later. Incredulously, they deemed that separate world records would be recognized by FINA for both “A” and “B” strokes. But most disparagingly for Armbruster and the advocates for implementing the use of the dolphin kick in Stroke “B,” at least, the ruling body continued to forbid any up and down movements of the legs in the vertical plane, thus negating any possibility for the butterfly to become a separate event for the 1952 Olympic Games.

1953: Seeing the Dawn, Daylight Beckons

In FINA’s April 1952 *Bulletin*, it is clear that the argument for creating a new and separate event for butterfly-breaststroke (stroke “B”) was gaining momentum in various parts of the world.⁴⁶ That argument was accelerated, ironically, by the so-called “look” of the 200

Breaststroke event at Helsinki in August of 1952. There, the breaststroke heats included a curious mix of conventional breaststrokers (stroke “A”), butterfly-breaststrokers (stroke “B”), and, astonishingly, a completely different class of breaststrokers which might have been labeled stroke “C” if the rules makers had exercised any foresight at all. This group featured the vanguard of the underwater breaststroke movement, a technique, by the way, that the Japanese would perfect to dominate the breaststroke event four years later at the 1956 Olympic Games in Melbourne.⁴⁷ What a mess. One wonders what it would have been like to be a stroke and turn official in the middle of such a quixotic collection of styles occurring both under and over the surface of the water.

Clearly, it was time to return breaststroke to a conventional posture, not to mention breathe life into a new event called butterfly. During the autumn of 1952, the swimming world weighed in on the issue as well as the travesty at Helsinki. Never had the swimming world experienced such a fuss. At any rate, so far as FINA and international swimming were concerned, January 1953 became the benchmark moment in the separation of the orthodox breaststroke from the butterfly-breaststroke. The option of recovering the arms over the water in breaststroke, as well as the “A” and the “B” options disappeared from FINA’s rules, and, most importantly for Armbruster and “Friends of the Butterfly,” the rules, for the very first time, not only separated the two events, but allowed up and down movements of the legs in butterfly.⁴⁸ Hallelujah! The door that had been slammed shut in Armbruster’s face for so long had swung open at last, at least in international swimming. A year later, the rules committees of the AAU and the NCAA modified their rules books to recognize butterfly as a separate stroke effective for the 1954-1955 season.

As the newly approved stroke moved cautiously through the dawn of its shakedown swims in the early 1950’s, it looked eerily familiar, like some sort of mystical illusion perhaps, appearing out of the fog of the stagnant seas of the Depression. But it was not an illusion, because even as the stroke began to acquire a measure of sophistication, there was no hiding the fact that it looked almost exactly like D.A. Armbruster’s old 1935 Dolphin Breaststroke.⁴⁹ As the saying goes, “the more things change, the more they remain the same.” All that aside, there is little doubt, that in the end, Armbruster’s quest endowed the world of competitive swimming with the final yet critical ingredient in the program of events we swim today. For the favorite son of Iowa swimming, the entire saga had been nothing less than a triumph of will or, more precisely, a triumph of persistence over forces of resistance, resulting, in the end, in the providence of completing the swimming world’s “quadrinity” of competitive strokes.

Chronology

The following chronology provides a historical time line of the evolution of the butterfly stroke from 1911 to 1970:

- 1911:** D.A. Armbruster meets George Corsan Sr. at a swim clinic in Toronto, where Corsan discusses and demonstrates the fish-tail kick, thinking of it as a possible alternative to the 4 and 6 beat freestyle kicking patterns used at that time.
- 1916:** D.A. Armbruster begins a forty-two year career as head swimming coach at the University of Iowa.
- 1926:** Erich Rademacher (Germany) begins to use a variation of the scissors kick in breaststroke swimming, as well as over-the-water arm recoveries on turns and later finishes, resulting in “official” world record swims free of disqualification by European officials. Makes first appearance in the United States, swimming exhibitions at the NY Athletic Club and Yale University.

- 1928:** Erich Rademacher wins silver medal in 200 Breaststroke at the Amsterdam Olympics. Also wins gold as a member (goal tender) of Germany's winning water polo team.
- 1928:** Walter Spence, et al, begin using "fly-away stroke" on turns and finishes, in short course breaststroke events as well as opening leg of three-stroke medley events.
- 1928:** D.A. Armbruster begins a twenty-year study on "The Science of Swimming."
- 1932:** Armbruster begins experimentation at the University of Iowa with Jack Sieg on the "dolphin breaststroke kick".
- 1933:** Henry Myers uses first "wall-to-wall" over-arm recovery in opening breaststroke leg of a three-stroke medley race against world champion Wallace Spence in a preliminary heat at an AAU meet at the Brooklyn Central YMCA, leading to a popular adoption of the technique for breaststroke swimming.
- 1934:** Lester Kaplan and Paul Friesel begin using "butterfly-breaststroke" style wall-to-wall in 100 yards breaststroke events. Attempt to break world record of 1:06.8 at City College pool in January in New York City. Kaplan narrowly misses record but proves how much faster the over-the-water arm recovery is than conventional underwater breaststroke recovery.
- 1935:** Armbruster and Sieg conduct a demonstration of the "dolphin breaststroke" for the NCAA Rules Committee at the NCAA Championship Meet at Harvard University.
- 1935:** Armbruster publishes benchmark article "The Dolphin Breaststroke" in the April issue of *The Journal of Health and Physical Education*.
- 1937:** Armbruster publishes "The New Dolphin Breaststroke on Trial" in the Educational Section of the *1937 NCAA Swimming and Diving Guide*.
- 1938:** FINA Bureau falls one vote short of prohibiting the "butterfly" recovery in breaststroke. Prohibits up and down movement of the legs in the vertical plane in breaststroke, thwarting Armbruster's plea for international acceptance of the dolphin breaststroke kick.
- 1940:** Cancellation of the 1940 Olympics, ironically scheduled for Tokyo, Japan.
- 1944:** Cancellation of the 1944 Olympics originally scheduled for London, a city left in ruins by the Luftwaffe's blitz bombing during WWII.
- 1948:** All eight finalists in the London Olympics 200 Meters Breaststroke event use the butterfly-breaststroke technique.
- 1949:** FINA creates subtle but only partial separation of butterfly from breaststroke. Declares that breaststroke swimmers must opt to swim either Stroke "A" (conventional breaststroke) or Stroke "B" (butterfly breaststroke). Also declares that strokes cannot be used either in alternation or intermittently and that FINA will recognize separate world records for each stroke.
- 1950:** FINA Bureau petitions the IOC to add 100 meters butterfly-breaststroke (Stroke "B") events for both men and women at the 1952 Games in Helsinki. IOC subsequently rejects petition for any changes in the Olympic program for '52 Games but "tables with intent" to review separation of the two strokes at its Congress meetings in Helsinki following the '52 Games.
- 1952:** The Helsinki Olympics 200 Breaststroke event features a three-way mix of breaststroke styles: conventional breaststroke, butterfly breaststroke, and underwater breaststroke.
- 1953:** FINA finally separates butterfly completely from breaststroke. Allows up and down movements of the legs in the vertical plane for the first time, thus legalizing use of dolphin kicking technique. Returns breaststroke to orthodox

- status by disallowing over-the-water recovery in breaststroke. Recognizes separate world records in each event.
- 1954:** Buddy Baarcke wins first 100-yards Butterfly event in National AAU Championships at Yale, using the dolphin butterfly stroke and kick.
- 1955:** NCAA Rules Committee separates breaststroke from butterfly for the 1954-1955 season, including the 1955 Championship meet. Follows FINA's 1953 adjustments to both butterfly and breaststroke rules.
- 1955:** Phillip Drake of North Carolina wins first 200 Butterfly event at NCAA Championships at Miami of Ohio University.
- 1956:** Bill Yorzyk of the United States wins first 200 Butterfly event in Olympic history at Melbourne, Australia. Swims double-dolphin butterfly with alternate breathing for entire 200 meters, establishing a style that would be used for decades to come.
- 1956:** Shelley Mann of the United States wins first 100 Butterfly event for women in Olympic history at Melbourne, Australia. Uses the dolphin butterfly style taught to her by Charles "Red" Silvia and Bill Yorzyk at the U.S. Olympic Trials at the Brennan Pools in Detroit, Michigan.
- 1958:** D.A. Armbruster retires as head coach of swimming at the University of Iowa.
- 1970:** NCAA finally eliminates the option of using orthodox breaststroke kicking in butterfly for the 1970-71 season.

Endnotes

The scenario surrounding Bill Yorzyk's introduction to swimming at Springfield College in 1950 was recounted to David Barney in a telephone conversation with Yorzyk on 7 March 2006. Yorzyk's early athletic record gave absolutely no indication that in time he would become an Olympic champion. He remembers that he was the first one "cut" at tryouts for the various athletic teams of his high school (Northampton, Massachusetts). To finally become associated with his school's athletic endeavors, he resorted to organizing an aquatic club in his junior year, and a school swimming team in his senior year. He did not swim; he administered and supervised.

² Ibid.

³ Yorzyk recalls that his Freshman swimming experience on the Springfield College team was entirely without note. He could not even "make the freestyle relay team, even as an alternate." As related to Robert Barney in a personal interview at Yorzyk's Sturbridge, Massachusetts home, 25 June 2006.

⁴ Email, William Yorzyk to David Barney, 14 March 2006.

⁵ Ibid.

⁶ See Matt Mann and Charles Fries, *Swimming* (Englewood Cliffs, New Jersey: Prentice-Hall, 1940), p. 45.

⁷ See, for instance, Cecil M. Colwin, *Breakthrough Swimming* (Champaign, Illinois: Human Kinetics, 2002), pp. 30-31.

⁸ For an account of this exciting race, see George Russell, *The Olympic Century Series* (Volume 9) – *IX Olympiad, Amsterdam 1928-Lake Placid 1932* (Los Angeles: World Sport and Research Publications, Inc., 1999), pp. 82-84.

⁹ See François Oppenheim, *The History of Swimming*, translated from the French by Swimming World Books (New York: Swimming World Books, 1970), p. 120.

¹⁰ See *New York Times* (hereafter cited as NYT), 15 March 1926, ProQuest Historical Newspapers-The New York Times (1851-2003) Data Base (hereafter cited as ProQuest-NYT). Here the NYT comments on the first two appearances in the United States of world breaststroke record holder Erich Rademacher, where he was said to have "... aroused considerable discussion concerning what should be considered standard form in this style of natation. It was a matter of general comment when the invading ace appeared in the Yale pool on Tuesday and at the New York Athletic Club on Wednesday that his action does not conform strictly with the requirements laid down and universally accepted in this country. These requirements include steady balance of entire body, as well as absolute similarity in the respective movements of arms

and legs and Rademacher not only throws out the left knee more than the right in performing the kick but he fails to keep his feet on an even plane, the left often lifting to break the surface, the right remaining always submerged. Rademacher, nevertheless, has competed all over Europe and no murmur has come from abroad to indicate that anywhere his style was deemed unorthodox. ..”

¹¹ See *1935 NCAA Swimming and Diving Guide* (New York: American Sports Publishing Company, 1935), p. 12.

¹² See *1945 NCAA Official Swimming Guide*, pp. 41-43. *The NCAA Guide* considered records and performances occurring the previous year, in this case, a review of the 1944 (21st annual) NCAA Championship Meet written by RJH Kiphuth, chairman of the NCAA Rules Committee. Over the years, the *Guide's* title would change to include the word “Official,” rules and records for the College and University sports of diving and water polo, and, as well, rules and records of Interscholastic Swimming, Diving, and Water Polo.

¹³ Biographical information on the Spence brothers can be gleaned from at least three fundamental sources: (1) the International Swimming Hall of Fame Archives (ISHOF): www.ISHOF.org/67SpenceBrothers.html; (2) the Rutgers University Sports Hall of Fame Archives: www.scarletknights.com/history/hof_97.html; and (3) Buck Dawson, *Chikopi and Akomak: The Story of the Matt Mann Sports and Wilderness Camps* (Fort Lauderdale, Florida: Hoffman Publishing Company, 1993), p. 387.

¹⁴ Henry Myers to Mr. [Robert] Kiputh, 13 October 1940; published in Robert J. H. Kiphuth, *Swimming* (New York: The Ronald Press Company, 1942), pp. 80-82. Kiputh's book, *Swimming*, was re-published later the same year (1942) by A. S. Barnes & Company of New York as part of the Barnes Sports Book Series, a set of volumes presented in “instructional manual” context.

¹⁵ *Ibid.*, pp. 80-82

¹⁶ *Ibid.*, p. 82.

¹⁷ *Ibid.*, p. 79.

¹⁸ See *1935 NCAA Swimming and Diving Guide*, p. 12.

¹⁹ In a footnote to the final “Breast Stroke” results at the Berlin Games, published in the *British Olympic Association Official Report*, compilers of the “Swimming” account commented that: “Higgins used the new butterfly stroke intermittently.” See *British Olympic Association: Official Report of the XIth Olympiad*, 1936 (London: British Olympic Association, 1936), p. 176. Higgins' fourth place time of 2:45.2 in the final was 3.7 seconds behind Japan's Hamuro, who won the gold medal in the Olympic record time of 2:41.5.

Not all swimming officials in the world were enthusiastic about the butterfly arm motion in the breaststroke, as we learn from the cryptic comments of the composers (Messers G. Collins, J. H. Derbyshire, R. P. Green, and G. Matveieff) of the 1936 Olympic Games “Swimming” report for the British Olympic Committee. Commenting on the performances of American swimmers, including its breaststrokers, the following opinion was presented: “The Breast-stroke swimmers [Americans] used the butterfly style, which was a failure; none of the men competitors being able to maintain their stroke even for half the distance.” Brackets ours. See *Ibid.*, *British Olympic Association: Official Report*, 1936, p. 168.

²⁰ The contribution of John Higgins to the evolution of the butterfly-breaststroke was one thing; his career at Ohio State University, where he was an All American swimmer, as well as senior captain, was another. Perhaps his most significant contributions to sport, it appears to us, was his long and legendary service to the United States Navy and to the Naval Academy's aquatic program. He was elected president of the American College Swimming coaches Association in 1965; a year later he was inducted into the International Swimming Hall of Fame, first as a swimmer, then as a coach.

²¹ In fact, it was while sitting in the spectator stands viewing a “finals session” of the 2005 NCAA Swimming and Diving Championships at the University of Minnesota's stunning facility in Minneapolis that our interest in this investigation was originally born. We noted that the *Official Program*, in listing the NCAA's annual butterfly champions through the years, extended the list all the way back to 1935, an egregious error in our estimation, and one that should be corrected. *The Official NCAA Division I Men's*

2005 Swimming & Diving Championship Meet Program (Lexington, Kentucky: Published by the National Collegiate Athletic Association, CBS and Host Communications, 2005), see p. 40.

²² See *NCAA Swimming & Diving Guides*, 1937 to 1954, inclusively.

²³ *1955 NCAA Swimming & Diving Guide*, Rule IX, Breaststroke Rules, pp. 139-140.

²⁴ For biographical information on Armbruster, see: www.ISOH.org/66DavidArmbruster.html.

²⁵ See Ernie Maglischo, *Swimming Faster* (Palo Alto, California: Mayfield Publishing Company, 1982); and Ernie Maglischo, *Swimming Fastest* (Palo Alto California: Mayfield Publishing Company, 1993).

²⁶ There is little doubt that C. H. McCloy, America's first "giant" in the bioscientific realm of physical education and exercise, had immense impact on Armbruster's approach to coaching swimming. McCloy arrived at the University of Iowa in 1930, fourteen years after Armbruster's arrival there. Armbruster could hardly have had a better mentor in the application of science to physical movement. McCloy, a PhD graduate from Columbia University, saw the human organism as "more body than mind." Though he became largely known for his studies on the biomechanical and anthropometrical approaches to movement and exercise, he was well grounded in other aspects of sport science, including anatomy, exercise physiology, and tests and measurements. As much as he expounded on and experimented in the field of scientific research applied to sport movement and exercise, he was an outspoken critic of the pontifications made by leaders in American physical education on the so-called "value theories" of sport (democracy, harmony, teamwork, tolerance, sacrifice, sportsmanship, etc.). For a concise but condensed description of McCloy's career accomplishments, see Ellen W. Gerber, *Innovators and Institutions in Physical Education* (Philadelphia: Lea & Febiger, 1971), pp. 403-409. The earliest known collaboration between Armbruster and McCloy appears to have been a co-authored study on swimming and water hydraulics. See "Introduction," in David A. Armbruster, *Competitive Swimming and Diving* (St. Louis: C. V. Mosby Company, 1942), p. 26.

²⁷ See David A. Armbruster, "Under-Water Observation Windows for Use in the Study of Technique in Swimming Strokes," *NCAA Swimming and Diving Guide* (New York: American Publishing Company, 1940), pp. 71-73. Here, Armbruster describes how he designed five under-water observation windows placed in the sides of the University of Iowa's 20 yard pool built in 1926, windows behind which he carried out observation and photographic analyses beginning in 1928.

²⁸ Aside from domination in the breaststroke, Japanese swimmers overwhelmed their opponents in Los Angeles in 1932, especially in men's swimming. Male Japanese swimmers finished first and second in the 100 meter freestyle; third, fourth, and fifth in the 400 meter freestyle; first and second in the 1,500 meters freestyle; first, second, and third in the 100 meters backstroke; and first in the 800s meter freestyle relay.

²⁹ Between 1942 and 1973, Armbruster's original book, *Competitive Swimming and Diving* (St. Louis: C. V. Mosby Company, 1942), went through six editions (1942, 1950, 1958, 1963, 1968, and 1973—each one enlarged from the previous edition to include the latest research analysis updates), a longevity record unmatched by any other technical book ever published on swimming. Whereas Armbruster was the sole author of the first edition, subsequent editions were co-authored with noted sport scientists (for example, University of Southern California's Laurence Morehouse), diving coaches (for instance, Indiana University's Hobert Billingsley), and swimming coaches (including Armbruster's successor at Iowa, Robert Allen).

³⁰ Sieg's frolic-like kicking in the Iowa pool in the spring of 1932, the very first notation of what might be called a "dolphin fishtail" kick, is described by Armbruster in his seminal article on the evolution of the "Dolphin Breast Stroke." See David A. Armbruster and Jack G. Sieg, "The Dolphin Breast Stroke," *The Journal of Health and Physical Education*, Vol. VI, No. 4, April 1935, pp. 23-26, and p. 58. Armbruster's pertinent remarks were as follows: "Now let us go back about three years. One day in a moment of relaxation and play, the writer [Armbruster] saw Jack Sieg go under water, lie on his side, with his arms trailing at the sides, imitating a fish, imitating the undulating movement with his head. I have often seen boys do this in water but never saw anyone derive the speed that Sieg was able to attain from it. We then tried it with the body face down, and the result was even greater. We then had him do it for speed against some of our best flutter-crawl kickers—no one could beat him" (pp. 24). Brackets ours.

³¹ George Corsan, *At Home in the Water: Swimming, Diving, Lifesaving, Water Sports, Natatoriums* (New York: Young Men's Christian Association Press, 1910).

- ³² George H. Corsan, Sr., *The Diving and Swimming Book* (New York: A. S. Barnes & Company, 1924).
- ³³ For more on this encounter, see www.ISHOF.org/DavidArmbruster66.html.
- ³⁴ David A. Armbruster, *Competitive Swimming and Diving* (St. Louis, C. V. Mosby Company, 1942), p. 195.
- ³⁵ This was reported in the *Journal of Health and Physical Education*, Vol. 6, No. 4, April 1935, p. 3.
- ³⁶ Armbruster recounted this episode almost immediately after its occurrence. See "The Dolphin Breast Stroke," *The Journal of Health and Physical Education*, Vol. VI, No. 4, April 1935, p. 23.
- ³⁷ *Ibid.*, pp. 24-25.
- ³⁸ *Ibid.* p. 23.
- ³⁹ Armbruster's concern on this point is ably supported by a 1926 *New York Times* article on "Swimming" written by John Drebing. Wrote Drebing: "... some of our leading experts now are wondering whether we have not gone beyond the limit in the drastic enforcement of breast-stroke requirements as here [in the USA] interpreted. Europe is the birthplace of the stroke and the compiler of the basic laws governing its usage in competition, yet evidently European authorities are not nearly as strict as American officials in upholding the formulated rules. There is source for thought in that." See "Swimming," *NYT*, 15 March 1926, ProQuest-NYT. Brackets ours.
- ⁴⁰ Armbruster, "The Dolphin Breast Stroke," *American Journal of Health and Physical Education*, Vol. IV, No. 2, April 1935, p. 23.
- ⁴¹ D. A. Armbruster, "The New Dolphin Breast Stroke on Trial," *1937 NCAA Swimming and Diving Guide* (New York, American Publishing Company), pp 52-57
- ⁴² *Ibid.*, p. 55. In effect, Armbruster's plea, as he himself stated it, was: "Let's speed up the breast stroke!" (p. 57).
- ⁴³ FINA (Fédération Internationale de Natation Amateur) *Bureau Bulletin*, No. IV, October 1938, p 13.
- ⁴⁴ The American voice for this objective to occur in Helsinki in 1952 came from Max Ritter, American Honorary Secretary of FINA's Executive Bureau. In a letter to Sweden's Bert Söllfors, FINA Secretary, Ritter outlined the controversy and posed a solution: "... I am very sorry to see this disharmony in our ranks. The most difficult thing is – I think so – the question of the Olympic programme. If it should be possible to have the improvement of the I.O.C. for an increase of this program by a special event for the Butterfly stroke and for the Medley Relay (both for men and women), then it would be possible to change our decision according [to] the wishes [of] our opponents, even if the [arguments] concerning the increase of the expenses caused to the National Olympic Committees remains in full validity. If the I.O.C. maintains his opposition against all changes of the Olympic program, then our situation will be very difficult and I don't know how we shall find a way out to [satisfy] all!! You may have the opportunity to see Mr. Edstrom, President of the I.O.C., before the meeting of the I.O.C. to be held next April in Switzerland and I recommend [that] you inform him about all the difficulties we have and ask him to support our request." See Max Ritter to Bert Söllfors, 6 March 1949, ISHOF, Fort Lauderdale, Florida, USA. Brackets ours. We are grateful to Bob Duenkel, Curator of ISHOF, for bringing this source to our attention.
- ⁴⁵ See *FINA Bureau Bulletin*, No. 9, January 1949, pp. 21-22.
- ⁴⁶ *FINA Bureau Bulletin*, April 1952.
- ⁴⁷ In the 200 meter breaststroke at Melbourne, Japan's Masaru Furukawa won the gold medal in a startling time of 2:34.7. In a spirited battle for the silver medal, Masahiro Yoshimura edged the Soviet Union's Charis Yunquev by .1 of a second.
- ⁴⁸ See *1953-1956 FINA Rule Book*, p. 29.
- ⁴⁹ See *1955 NCAA Swimming and Diving Guide*, p. 139.

O Brave New World of Super Suits: So Fast Even Phelps Didn't Know the Water was There

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Abstract

Many years ago, there came a moment in my less than sophisticated scholarly life, when I was able to free myself from the shackles of literary ignorance, however briefly I might add, and embrace the sociological curiosities of Aldous Huxley's quintessential dystopian novel *Brave New World*.¹ That ancient moment aside, the recent phenomenon of high-tech fabric racing swim suits and their radical effect on swimming performance is reminiscent of some of the disturbing characteristics inherent in the horror of the optimum-engineering motifs of Huxley's satirical fiction. Beyond providing me with a title, which, I should say, comes to me third-hand, rather than second-hand, since Huxley himself lifted it from Shakespeare's *Tempest* (so much for literary shackles), Huxley's scientific prophecies, it appears to me, provides us with a metaphor for what swimming performance might have evolved to had the swim suit manufacturers been given continued laboratory license to tinker further with fabrics enhancing the human body's capacity to perform, in this particular case, in the arena of artificial returns. But, of course, as we all know now, thankfully, that license was revoked by swimming's international governing body, FINA, almost three years ago. FINA's fiat would bring to a close a decade of high-tech suit design and, subsequently, use and abuse, if you will. The most visible abuse reflected what many coaches suspected to be an artificial level of performance leading to an almost complete decimation of records wherever records resided in the realm of competitive swimming. Simply stated, when the suits were worn, records went tumbling down all over the planet. Most visible, of course, were all the World and Olympic records that lay awash and floundering in the wake of all those super-suit enhanced swims.

Key words: swimming, aquatic history.

The Great Zacchini and the Evolution of Fashion

For those of us old enough to remember something about the fashion evolution of competitive swim attire, we seemed initially only amused by the effect which the new body suits appeared to have on swimming performance. After all, we had been there before, we thought, coaching through a 20th Century metamorphosis of materials from cotton to silk, to wool, to nylon, to lycra, to polyester, and even to paper suits, each of which played a role in ushering us toward the dawn of the so-called high-tech suit era, which, incidentally, coincided with the early light of the 21st Century.²

But long before that new light in time, I remember my own personal introduction of sorts to the "look" of what we call today "super-suits." That intro had absolutely nothing to do with swimming and swimming bodies. Rather, as it turned out, it was more about aerodynamics and showmanship than it was about hydrodynamics and world records, which, being only six years old at the time, I knew absolutely nothing about, nor, even, the difference between super-suits and birthday suits, for that matter. But that ignorance has been eradicated by the bliss of memory, because I can recall with a fair degree of clarity the occasion of my sixth birthday in the winter of 1938, when my father took my twin brother and me to the old Boston Garden for a matinee performance of Barnum & Bailey's Ringling Brothers' Circus, featuring at that time a human cannonball shot out of a huge howitzer. The Cannonball was billed as "The Great Zacchini." Even

after all these years I can distinctly remember the aura of expectation that gripped us as we sat in the cavernous confines of the Garden, embedded in air smelling of peanuts and cotton candy. Even at a distance the cannon appeared enormous. In the magnification of childhood memory, its barrel seemed at least as long as “Big Bertha’s,” Germany’s wonder weapon in WWI.³ Considerable fanfare accompanied The Great Zacchini’s appearance and subsequent immersion into the barrel of the cannon. When the “Great One” exploded in an artificial puff of smoke from the mouth of the howitzer and arced like a blur of blue rainbow across the dark heavens of the Garden, we sat transfixed on the edge of our seats, pie-eyed beneath the spectacle of it all. Even the Cannonball’s termination of flight was spectacular: a plummeting free-fall from the rafters of the Garden, followed by a high-speed landing that swallowed “The Great Zacchini” like a fly caught in the throat of a huge net, a mesh that swallowed his impact in one mighty gulp and then regurgitated him in a series of somersaults toward the edge of the net. When the human cannonball finally reached the safety of sawdust, accompanied by all the pomp that a circus band and a ringmaster’s hyperbole could provide, and presented himself at center ring to acknowledge our awe and adoration, we saw that he was encased in a form-fitting, blue body suit with a flaming red hood. He looked like a blue bullet or maybe more like a missile, standing and bowing there in the spot of that circle of light. And that was the first I knew about body suits.

The Fastskin Era

Flash forward sixty-two years from 1938 to 2000, when the prologue to the whole phenomenon of high-tech suit use began “Down Under” in Sydney, Australia, at the Games of the XXVII Olympiad, where the suggestion or prototype of the super-suits of today (perhaps I should say yesterday, now that the suits have been banned) made their debut after being declared legal by FINA in October of 1999. They were called Fastskins then, and the first ones were manufactured by Speedo.

The Fastskins were full-length body suits which featured skin coverage from wrist to neck to ankle encasement. Fastskins were constructed of a knitted, biometric fabric designed to emulate the hydrodynamic character of shark skin. Indeed, the genesis of Speedo’s advertising thrust back then encouraged swimmers to “Buy a Fastskin and Swim Like a Fish” and then later proclaimed “the water won’t even know you’re there.”⁴

As it turned out, Speedo’s pitch was certainly more than merely tongue-in-cheek. Indeed, many swimmers, and especially world-class swimmers, recognized immediately a diminishment in the degree of difficulty encountered when moving through water. As coaches and competitive swimmers know all too well, an aquatic environment is anything but accommodating to a swimmer’s progress through the various negative properties of water and especially turbulent water. The first of those negative properties is, of course, the density of water itself; the second is turbulence induced by both a swimmer’s mere presence as well as his or her subsequent movement in water; the third is water’s reluctance to support high body buoyancy.

The original Fastskin suits worn at Sydney in 2000, and then the Fastskin II’s worn four years later in Athens, addressed mostly the challenge of reducing drag. Perhaps if the fabric laboratorians had limited their experiments to reducing drag only, something that several other speed-related apparel manufacturers were doing at that time, they might have avoided what ultimately became a firestorm of controversy surrounding issues of ethicacy as well as concerns relative to artificially induced performance.

“Steroids on Hangers”

But, no, once the issue of drag had been put to rest by the manufacturers, they, quite naturally, turned their attention toward increasing body buoyancy. Voila! Behold the birth of the polyurethane paneled Speedo LZR, worn in Beijing in 2008 and then, subsequently, the totally “rubberized” polyurethane suits worn a year later at the World Championships in Rome. By degree, these suits not only reduced friction drag to practically zero but significantly increased a swimmer’s body buoyancy as well. The end result of all this, in a nutshell, was that the suits appeared to make mediocre swimmers good swimmers; good swimmers became *really* good swimmers; and great swimmers, well, they spent most of their time looking in the rear view mirror at all those world records they had just broken.

So, a chemistry of cloth, then, as well as the applied physics of fashion, each inherent in the design and manufacture of the super-suits, ultimately produced a product which, not only streamlined swimmers in much the same way that evolution has streamlined fish, but which complemented their physiology as well. Indeed, by the time the Huxley hydrodynamicists had finished their laboratory quest to maximize performance by minimizing factors that collectively inhibit speed, they had created an extreme super suit, which not only reduced drag, but further enhanced potential for speed by compressing muscular efficiency, thereby reducing muscle oscillation, which in turn diminished fatigue potential. And, of course, the rubberized suits also radically elevated a swimmer’s buoyancy. The sum sample of this domino effect ultimately produced a racing suit that, in the eyes of some at least, aroused suspicions relative to artificially enhanced performance. And there’s where the rub of ethicacy rests. Indeed, “steroids on hangers” became a snide, common, metaphorical, compound-noun of choice in the lexicon of many swimmers, coaches, and, of course, journalists.⁵

Aside from the obvious issue of enhanced performance, many objections with the super suits had to do with their cost. That factor alone seemed to enhance the notion of division or two distinct bodies of users: namely, those who could afford the ultra-expensive suits and those who couldn’t, thus pointing yet another finger at what privilege could buy, in this case, clear advantage. Beyond that consideration, there existed, in the beginning, at least, the warped mentality of encasing even 10 year-olds in super suits, and sometimes for meaningless meets at that.⁶ Everyone, it seemed, had to have a super-suit. Where would it all have ended, I wonder, if the suits had not been banned?

The Extreme Super Suit Era

The beginning of the end of the *extreme* super-suit era occurred in China in 2008, where and when the world watched the polyurethane-paneled, Speedo LZR-clad Michael Phelps capture the planet in the palm of his hand at the Water Cube in Beijing. It was riveting theater, so riveting in fact that even though the suits were playing an important supporting role in the drama, they somehow took a side seat, somewhere in sight but out of mind. And, whereas the controversial use of the Fastskin suits at Sydney in 2000 and then the Fastskin II’s at the 2004 Games in Athens alarmed many coaches, their concerns at that time were sublimated somewhat by the more binding controversy of drug usage by swimmers as well as other athletes competing across the broad spectrum of Olympic events. And four years later in Beijing, despite an avalanche of records, one could honestly say that the escalating controversy concerning the by-then almost universal use of high-tech suits became once again subordinate in the psyche of the swimming world, this time swept aside by the hysteria of human performance, artificial or otherwise. Most of us remember that hysteria as the “The Phelps Phenomenon.” In the echo of all that hullabaloo, it was little wonder, then, that the continuing controversy

of what to do about the suits would simmer on FINA'S back burner for yet another year.⁷

The Phelps' Phenomenon

Regarding "The Phelps Phenomenon," really, one had to be there to truly realize how totally absorbed people of all nations were with Michael Phelps and his quest to win eight gold medals and set eight world records. The hype was extraordinary. Even early in the competition, it became graphically clear that Michael Phelps did not merely belong to Americans; he belonged to the planet and all of us earthlings collectively celebrated his triumphs. Even those tiring and redundant chants of USA! USA! became meaningless and muffled, then lost altogether in the thunderous acclaim accorded Phelps and each of his astounding feats. That phenomenon, by the way, was not limited to the Cube only. Giant flat-screen TV's, located seemingly everywhere in Beijing, as well as in living rooms around the world, I might add, became gigantic magnets that not only drew the attention but held the fascination of a global population in a common, magnetized embrace. Whereas Usain Bolt may have had his day later in the limelight at the Birds Nest, Phelps invoked his magnetism early on across the street at the Water Cube and held both the world and the Games in his fist long after the Olympic flame had become not only extinguished but redundant.

Technology vs. Ethicacy

But somewhere in the echo of all the Beijing Olympic swimming, there remained the issue of the suits. Clearly, the genie was out of the bottle. Technology had crossed the line of ethicacy. The words enhancement and performance became almost synonymous. Each was uttered in the same breath. As the reality of an astronomical nineteen new world records and eight new Olympic records began to set in, highlighted as they were by "The Phelps Phenomenon," many coaches of curious mind and a degree of foresight reasoned, quite correctly as it turned out, that if the super-suits of the Beijing Olympics could alter performance as much as they appeared to do in 2008, then to what degree might the ultra super-suits of tomorrow and then the day after that affect performance? It did not take many tomorrows for that question to be addressed.

The first of those tomorrows took place in College Station, Texas, in March of 2009 at the USA NCAA Division I Men's National Championship Meet. Unlike the rest of the world, American College swimming is conducted almost exclusively in 25 yard short-course venues, a distance less than half the length of a long-course 50 meter Olympic pool. Many of us coaches have marveled over time at the ever accelerating back-and-forth pace of swimming performance, including, of course, the recent Beijing, and even more recent than that, the 2009 World Championship record swims attained by swimmers encased in high-tech suits. But, when you place these same caliber world-class swimmers in a short course environment, speed is heightened; pace becomes magnified in the abbreviated space between dive, underwater streamlining, then turn and finish. During the pre-super-suit era of NCAA swimming, especially, many of us probably felt like displaced faces in a spectator gallery watching a tennis match, our heads turning from side to side in that predictable and somewhat casual, metronomic rhythm of a tennis galley. Well, that analogy was no longer pertinent at those college championships in Texas, held, by the way, only eight months post-Beijing. In College Station, we were introduced to the very latest, and, as it turned out, the last laboratory development in the decade-long metamorphosis of the super-suit saga. That development launched us into an all new experience in spectatorship as well. The pace of things in the Lone Star State had simply changed dramatically. There were no tennis balls flying back and forth in Texas, only ping pong balls it seemed. It was as if we had been retrofired back to Beijing

for the gold medal final of the table tennis competition, where our eyes tried to follow the dazzling super-sonic speed of all those little white balls being smashed back and forth over a tiny table. At Texas A&M, our heads swiveled from side-to-side like bobbleheads at what seemed like mach speed. Someone had turned up the metronome. Could the culprits have been Speedo, Tyr, BlueSeventy, Arena or Jaked? Perhaps we might discover the answer to that question footnoted in the laboratory reports of Huxley's Brave New World, where the scientific notion of test tube determinism harnessed to chemically-driven performance prevailed. But, so far as that particular NCAA meet is concerned, the European swim suit manufacturer Jaked proved to be the meddler, because it was the Auburn University Jaked-clad Tigers who not only dominated the competition but generated a mad rush of world class swimmers toward the use of Jaked's latest version of the high-tech suit, not merely a paneled but a *totally* polyurethane racing suit, which, in addition to all the other documented benefits mentioned a moment ago, increased a swimmer's buoyancy beyond all previous measure.⁸

A Records Overview

The orthodox and thus abbreviated-attire era of Olympic swimming ended in Atlanta at the 1996 Olympics, where only one world record and a mere three Olympic records were established.⁹ Four years later at the onset of the high-tech suit era in Sydney, men and women swimmers, clad mostly in Fastskins, generated 10 world records and 11 Olympic marks, none of which, by the way, had anything to do with a fifteen year-old ignoramus named Michael Phelps, whose best showing was a distant fifth in the 200 Meter Butterfly. But, Phelps aside, that astonishing rewriting of records became a precursor to what would eventually evolve to be an almost complete ruin of records, wherever records existed, over the next ten years and especially so during the last two years of the decade.

The end of the road for Olympic super-suit swimming, as I have previously noted, occurred in Beijing in 2008, where the polyurethane-paneled suits like Speedo's LZR, for instance, cranked out 19 World and 8 Olympic records. One year later at the 2009 World Championships in Rome, Jaked's innovation of a totally polyurethane suit bore the logo of some of the leading suit manufacturers in the world. Those rubberized encasements yielded an astonishing 43 new world records in a singular championship competition consisting of 46 events. That mind-boggling result would provide the final punctuation mark for a decade-long era of suspect swimming performance.¹⁰

FINA's Fiat: The Choreography of the End of an Era

The omnipresence of the super suits and their obvious influence on the astounding record breaking performances at Beijing, followed in short order by a steady stream of new swimming records around the world in the first half of 2009, led to an American-influenced coaching initiative, presented almost as an ultimatum, to FINA's Technical Committee at the end of March 2009. That initiative called for an immediate banning of the suits in their current form and fashion. Subsequent discussions by the Technical Committee led to various proposals regarding the two major issues of concern: namely, skin coverage and fabric content. Those discussions were followed by an almost equal number of declarations and then retractions by the Technical Committee in the face of threatened law suits by some of the manufacturers if the suits were banned. Finally, on July 23, 2009, just as the World Championship Meet was about to begin in Rome, the Technical Committee advanced a proposal of limitations to FINA's General Congress. Shortly thereafter, at their annual meetings in Lausanne, Switzerland, the FINA Congress approved the limitations, to take effect on January 1 of the new year. However, in the immediate echo of that farcical performance of record breaking swims in Rome in

August, FINA amended its date of ban to October 1.¹¹ FINA's fiat was framed by textile limitations, that must now meet specific fabric restrictions, which must in turn satisfy specific standards for buoyancy, permeability, and skin-coverage (namely, neck to knee for women and navel to knee for men), as well as the glib character of retrospect, I might add.

If FINA's early August decision needed instant justification or some kind of redemption, the timing couldn't have been better, since records began to fall like rain drops once the 2009 World Championships began in Rome in the immediate echo of FINA's Technical Committee's proposal. Indeed, as I mentioned a moment ago, by the time the final event was put to rest, a grand total of 43 new world records had been posted, and some of them, possibly, in a kind of warped perpetuity at that, since it will probably take some time for many of those "enhanced" records to be surpassed. Many coaches and swimmers of common ethical perspective shared the thought that the suits should have been banned long before the situation was ultimately resolved by FINA's fiat in the summer of 2009. Over time, many coaches continued to fault FINA for dragging its feet on the issue.¹² Their primary argument chastised FINA for caving in to various threats by swim suit manufacturers of legal repercussions if the suits were banned, as well as the stand that they had millions of dollars invested in research technology and could ill afford to cease selling the highly profitable five to eight-hundred dollar high-tech suits. Indeed, Speedo, for instance, was at some point rescued from the brink of Chapter 11 bankruptcy, when they cornered the high-tech suit market, initially with the Fastskins and ultimately with the very first of what we might call today, the super-super-suits, namely the Speedo LZR. Additionally, there lurked the manufacturers' tacit threat of drastically reducing or possibly even withdrawing their significant financial support of international swimming if the suits were banned. This, of course, gave pause to FINA's contemplations, because as we all know, if nothing else catches FINA's and their "big daddy," the IOC's attention, the bottom line does. In the end, however, mounting pressure from coaches around the world, as well as the thorny ethicacy of the issue, left FINA with little choice other than to finally capitulate and act on the coach's initiative.

The Fall-Out

But all that happened almost three years ago. What has occurred since the ban? What effect has limited skin coverage and fabric restrictions had on championship swimming? Well, first of all, male performance has been more affected than female performance, primarily because of the difference in coverage restrictions. In short, women gave up only the coverage that affected the lower leg, while men gave up coverage that affected the most critical anatomical contribution to swimming performance, namely, the torso.

The first and perhaps most concrete example of the effects of FINA's ban was the fall-out from the NCAA Division I Men's Championship Meet, held sans super-suits, in March of 2010 in the exquisite confines of Ohio State University's new ultra-fast aquatic facility. An examination of those results provide us with a graphic understanding of the high-tech suits' effect on swimming performance, or, in this particular case, lack of performance, if you will. The results were sobering, to say the least. Indeed, the entire program of events at Columbus cowered in the shadow of all the super-suit records set the year before in College Station, and so did the look of the newly legalized suit. FINA's fiat, had reduced the look of the men's super-suit of yesterday to the navel-to-knee jammer of two decades ago. The "new-old-look" yielded nada, nil, zilch, zippo, and for the first time in over half a century, not a single NCAA record swim over a program of eighteen events, the very same program that had yielded eleven super-suit-enhanced NCAA record swims a year earlier, and some of them by unknowns at that. Juxtaposing

these two diametrically opposed college championship meet results, accentuates, at least initially, the graphic effect that the super-suit window of opportunity imposed on swimming in general and championship swimming in particular.

Plus ça change, plus c'est la même chose

“Plus ça change, plus c'est la même chose” as the French would say, but it's the English translation we should be focused on, since the London Olympics are looming on the horizon. And like all the other commercial opportunities associated with the Olympic Games, we wonder what the swim suit folks, will be cooking up for London? They always do, you know, cook up something hot for the planet's most visible sporting festival. Something, for instance, hot enough to bask in the sun of all that free television coverage that the Games generate in general and for the sport of swimming in particular. Well, the word is already out. Expect many swimmers to be clad in Speedo's latest high-tech racing package, a triad of products priced at just under a thousand dollars and hyped with all the hullabaloo that modern technology can provide. But rather than listening to me, get the word straight from Phelps and company. Pay particular attention to Speedo's message, claims that appear to resemble the no's no's of FINA's ban. All this huff and puff, it seems, echoes the heading expressed in French at the beginning of this paragraph, namely, “the more things change, the more they remain the same.” (Speedo Fastskin3 Package Video)

Conclusion

A final and hypothetical thought, albeit a disturbing one: if the super-suits and especially the extreme, totally polyurethane suits of 2009 had not been banned by FINA initially, and then by various national and international constituencies around the world, and if the experimentation, manufacture, and subsequent use of the super-suits had been allowed to continue unrestricted, what then? How long would it have been before someone would have ultimately turned, or returned as the case might be, to the remaining part of the equation to accelerate performance, namely, to the swimmer? Dismissing, at least for the moment, the East German and then China's scandalous attempts of yesteryear, the answer to that question might be: not very long at all, since the advent of another Olympic festival is already drawing the world's attention toward London. Those Games of the XXX Olympiad will surely highlight swimming, a sport, that for a time at least, appeared to possess the potential to rival Mr. Huxley's laboratory schemes in which a test tube nursery begat a society born and bred to an eternity of predetermined position and performance. What then, indeed?

References

1. Aldous Huxley, *Brave New World* (New Perennial Edition), Harpers/Collins Publishers, New York, 1998
2. ISHOH (International Swimming Hall of Fame), “From Bloomers to Bikinis,” On exhibit at ISHOH.
3. Herbet Jager, *German Artillery of World War I*, Crownwood Press, ISBN 1-86126-403-8.
4. *Aquatics International*, Speedo Advertisement, June 2000.
5. Chris DeSantis, *Floswimmin'*, February 2009.
6. Andrew Dampf, *Sports News*, July 2009.
7. Amy Shipley, *Reach for the Wall*, December 2008.
8. Cecil Colwin, *SwimNews*, September/October 2009.
9. Wikipedia.org/wik/swimming records (1996, 2000, 2004, 2008 Olympics).
10. AIPS (Association de la Presse Sportive), May 2009.
11. FINA (Federation Internationale de Natation Amateur) Bureau Bulletin, October 2009.
12. Ishita Singh, *The Washington Post*, July 2009.

Enslaved Underwater Divers in the Atlantic World

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Abstract

Approximately 40,000 slave trading voyages carried some twelve million Africans to the Americas. The belly of each slave ship that crossed the Atlantic held Africans possessing sound swimming and underwater diving abilities. As Europeans colonized the New World they exploited the knowledge, skills, and labor of people of African and Amerindian descent. Slave owners quickly came to appreciate slaves' swimming dexterities. They instructed slave traders targeted members of African ethnic groups known to be adept swimmers for capture and transport to regions of the New World in need of skilled underwater divers. These enslaved divers were compelled they harvest pearls, sponges, and conch, salvage goods from sunken ships, and clear fisheries of debris that would otherwise snag and tear fishing nets. Simultaneously, slaves incorporated swimming into their recreational, social, and cultural activities. After a hard day's work they swam to cool off, relax, and sooth aching muscles. They competed in swimming contest and incorporated it into blood sports, like fighting alligators and sharks. Slaves also swam to freedom. As slavery was gradually abolished throughout the Americas slaves swam across waterways in their attempts to secure freedom. After slavery was abolished in they American North they crossed the Ohio and Potomac rivers. In the Caribbean many swam from several miles as they fled from one island to another. This paper concludes by examining the decline and near demise of swimming in the African American community.

Key words: aquatic history, swimming; diving.

Sports culture historian Richard Mandell wrote, "if there were indigenous sports among the imported Africans, they left no trace." At a time when most Europeans were not able to swim well enough to save their lives, African swimming traditions were transported across the Atlantic in the bellies of the forty thousand slave ships that carried twelve million Africans. Consequently, slaves used familiar African swim strokes, including the freestyle to recreate recreational and theatrical swimming activities that were based on skills developed in Africa. Indeed, we could more correctly call the "Australian crawl" the "African," "Hawaiian," or "Amerindian crawl," since it was these peoples who independently developed this swim stroke and introduced it to Westerners.

This article considers how slaves carried swimming and underwater diving skills to the Americas. It seeks to enhance our understanding of slavery by exploring how this system of labor was shaped by a cultural retention that scholars have heretofore neglected. First, it examines how slaves incorporated swimming into their recreational practices. Finally, since slavery was work, this article explores how slave owners used bondpeople's swimming and diving skills in several lucrative occupations. Because occupational diving was dangerous and required exceptional skill, it sometimes influenced white-slave relationships, prompting whites to reward slaves' dexterity by granting them limited privileges.

Recreational Swimming

Slaves swam for recreation and enjoyment, and, like their African antecedents, female slave were generally strong swimmers and divers. In the evening, many slipped into the water to cool off, relax, and cleanse themselves. North Carolina slave Bill Crump recalled: "We wucked in the fields from sunup to sundown, but we had a couple of hours

at dinner time to swim or lay on de banks of the little crick and sleep.” When John Stedman was in Guiana during the 1770s, he repeatedly observed slaves integrate swimming into their recreational lives, noting “swimming is their favourite diversion, which they practise every day at least twice or thrice.” On one occasion he asked an older, apparently African-born, slave named Caramaca how he maintained his health in this tropical, disease-prone environment, which contributed many premature deaths. “Swimm every day twice or thrice, Sir in the river. This Masera, not only serves for exercise but also keeps the skin clean and cool; and the pores being open, I enjoy free perspiration. Without this, by imperceptible filth, the pores are shut, the juices stagnate, and disease must invariably follow.” Enslaved canoemen throughout the Americas were often compelled to paddle for upwards of twelve hours per day. They swam during respites to cool off and soothe aching muscles. For example, while George Pinckard was in Guiana in the early nineteenth century, canoemen paddled him and a group of white travelers up the Berbice River “from half-past eight in the morning until seven in the evening.” Whenever the bondmen became “extremely heated, and bathed in perspiration” they were permitted to “rest, occasionally for a few minutes.” During these intervals, “they plunged from the side of the boat into the river, and swam about in order to cool themselves, and drive away fatigue.” Such scene of enslaved canoemen swimming provided white spectators in the Americas with distinctively African scenes not replicated by white mariners.

Slaves’ swimming habits extended beyond such impromptu activities. Bondpeople competed in sporting activities, including boxing and wrestling matches and foot and horse races. Such activities could enhance slaves’ self-esteem, making enslavement more bearable, and many slaveholders believed sports allowed bondpeople to vent their frustrations without threatening the stability of slavery. Though such activities typically occurred away from white supervision, some slaveholders organized slaves’ recreational activities. In the 1770s, John Stedman noted that adolescent slaves in Guiana competed in informal swimming contests, saying they swam “in groups of boys and girls, and both sexes exhibit astonishing feats of courage, strength and activity. I have seen a [slave] girl beat a hardy youth in swimming across the River Comewina.”

Slaves also swam in formal, planter-organized contests. Slaveholders occasionally organized boxing matches that pitted the champion fighter of one plantation against that of another. They apparently organized similar swimming contests. In the seventeenth century Richard Ligon observed a planter-organized contest in which slaves from Barbados had to catch a duck placed in a large pond. The captor was awarded the duck. The proprietor of this contest, Colonel Drax, “call[ed] for some of his best swimming *Negroes*, commanded them to swim and take this Duck; but forbad them to dive, for if they were not bar’d that play, they would rise up under the Duck, and take her as she swome, and so the sport would have too quick an end.” Describing the slaves’ use of the breaststroke and freestyle, Ligon said “in this chase there was much of pleasure, to see the various swimmings of the [slaves]; some the ordinary wayes, upon their bellies [like Europeans], some by striking out their right leg and left arm, and then turning on the other side, and changing both their leg and arm, which is a stronger and swifter way of swimming, than any of the others.” The winner of this contest was a female slave.

Whether organized by slaves or by slaveholders, swimming contests probably offered the winners prestige in the slave community and indicated that female slaves could beat their male counterparts. In addition to providing enslaved participants and observers with entertainment, the communal nature of such contests probably enhanced slaves’ sense of community.

Like their African ancestors, slaves born in the Americas learned to swim at an early age. Several accounts detail the swimming activities of enslaved children who were

between seven and twelve years old. These children seem to have been comfortable in the water, indicating that they learned to swim when considerably younger. One of the first sights that greeted John Stedman's eyes as he entered the Surinam River, after crossing the Atlantic, were "groups of naked boys and girls promiscuously playing and flouncing, like many tritons and mermaids, in the water." Frederick Douglass recalled that near the home he lived at when he was approximately seven or eight "[t]here was a creek to swim in, at the bottom of an open flat space, of twenty acres or more, called 'the Long Green'—a very beautiful play-ground for the children." Enslaved parents, family members, and entire slave community probably taught children to swim, just as they instructed them in gardening, cooking, sewing, hunting and enduring the hardships of bondage.

Though it is impossible to determine the percentage of slaves who swam proficiently, sources suggest that most did. Discussing the abilities of slaves in Barbados, Richard Ligon stated, "Excellent Swimmers and Divers they are both men and women." While Robert Walsh was traversing Brazil in the 1820s, he concluded that most slaves could swim, dubbing them "amphibious." Francis Fedric, who was enslaved in Virginia and Kentucky during the mid-1800s, contended that most bondpeople could swim, saying "unlike most slaves, I never learned to swim."

Some have incorrectly speculated that slaveholders tried to discourage slaves from swimming because it did not increase bondpeople's economic value and could aid them in escaping. Indeed, many slaves did incorporate swimming into their repertoires of resistance. Caribbean slaves, singly and in family units, swam from one island to another in their attempts to secure freedom, requiring them to cross waterways at least one mile wide. Yet, slaveholders generally lacked the time and desire to prevent slaves from swimming. Additionally, swimming could considerably increase slaves' usefulness and monetary worth, and many slaveholders recognized that slaves' ability to swim could prevent the drowning death of a valuable piece of property. Hence, many slaveholders encouraged or, at least, did not inhibit this activity.

Occupational Swimmers and Divers

Recognizing the superior capabilities of many people of African descent, some whites advocated their use as lifeguards. While Dr. George Pinckard was in Barbados, he wrote that slaves' swimming expertise "renders the negroes peculiarly useful in moments of distress, such as in cases of accident at sea or in the harbour." When a young John Clinkscales, of South Carolina, swam, his parents entrusted his life to a slave named Essex, who was a renowned swimmer. Indeed, throughout the Atlantic world, slaves' swimming proficiencies and whites' inabilities were juxtaposed when maritime accidents compelled blacks to save the lives of drowning whites. In 1805, Barbadian slaveholder Robert Haynes sent his three sons to school in Liverpool, along with a slave named Hamlet, who "saved the life of my son George," when he fell "overboard whilst landing at Liverpool." Similarly, a white clerk, "who could only swim a few strokes" slipped off a "ship's gangway" in Baltimore Harbor and was pulled by the current "far out in the harbour." Fortunately for him, his enslaved friend Zamba, who was raised on the "south bank of the river Congo" where he became "quite used to the water and could swim like a seagull," dove in after him, and "after a few minutes' strenuous exertion made up to my friend, who was just at the moment sinking; having seized him by the coat collar with my left hand, I continued to keep afloat until a boat came alongside and hauled us in." Similarly, after a Brazilian steamer ran aground and began to break apart during a storm, a black sailor named Simao "swam through the furious breakers" thirteen times to save as many passengers.

While the role of the lifeguard never became widespread, bondmen were employed throughout the Americas as underwater divers. Perhaps as a result of the tradition that barred women from maritime trades, bondwomen were not used as divers, even though many African women on both sides of the Atlantic were proficient swimmers.

Slave divers were highly skilled, and their diving abilities were unrivaled. Many could dive ninety-plus feet deep. It's unclear how divers acquired their abilities. But the lung capacity and the composure required to work at such depths suggests that they learned to swim at an early age.

As with masons, seamstresses, and blacksmiths, divers enjoyed the privileges slaveholders bestowed on skilled slaves. Most slaves detested agricultural field labor, and the most important privilege a slave could receive was placement in a skilled occupation. Such a job enabled them to escape the monotony of field work, find some dignity in their labor, enhance their self-esteem, gain the respect of their fellow slaves, and sometimes obtain cash payments, which benefited their lives and those of their families and friends, most of whom were field hands. Skilled slaves were often trusted by their owners, who frequently allowed them to work free of direct white supervision.

Divers differed from other skilled bondpeople in a significant way. Most skilled slaves ascended to privilege by gaining competence in Western artisanry. However, divers' abilities were African-derived. Thus, they demonstrated the vitality of African cultural transmissions and their power to shape the New World.

Importantly, the privileges that skilled slaves received were not the fruit of benevolence. Rather, slaveholders bestowed favors to extract more labor, and in turn more wealth, from skilled slaves' limbs and minds. While diving was an arduous, dangerous occupation that taxed divers' health and claimed many lives, enslaved divers gained material reward and respite from field labor, permitting them to live existences of privileged exploitation.

Spanish colonists along Venezuela's Pearl Coast were the first Westerners to exploit enslaved African swimmers. Initially, Amerindians were forced to dive for pearls. As diseases and overwork depleted their numbers, Spanish colonists looked to Africa for laborers. Commenting on this practice, Pieter de Marees said Gold Coast Africans "are very fast swimmers and can keep themselves underwater for a long time. They can dive amazingly far . . . and can see underwater. Because they are so good at swimming and diving, they are specially kept for that purpose in many Countries and employed in this capacity where there is a need for them, such as [Margarita Island] in the West Indies, where Pearls are found and brought up from the bottom by Divers."

In the morning each pearl canoe "sets sail for the oyster bed or pearl fishery, which generally" lay in waters over eighty feet deep. Divers held rocks to help them rapidly descend. Describing the diving process on Margarita Island, Antonio Espinosa said: "When they dive under water, they carry a little net or reticule, fastened by a rope to the canoe." As they ripped pearl oysters from their rocky fastness, they deposited them into the nets, "and with great speed and skill they come with this to the surface." While catching their breath between dives, they frequently "receiv'd a glass of Wine and a Pipe of Tobacco" as refreshment. Ironically, both would have impaired their diving abilities. While visiting Margarita Island in the late sixteenth century, after overfishing precipitated its pearl fishery's decline, Richard Hawkins became impressed with the abilities of the island's "expert swimmers, and great deever[s]," saying "with tract of time, use, and continual practice, having learned to hold their breadth long underwater, for the better atchieving their worke."

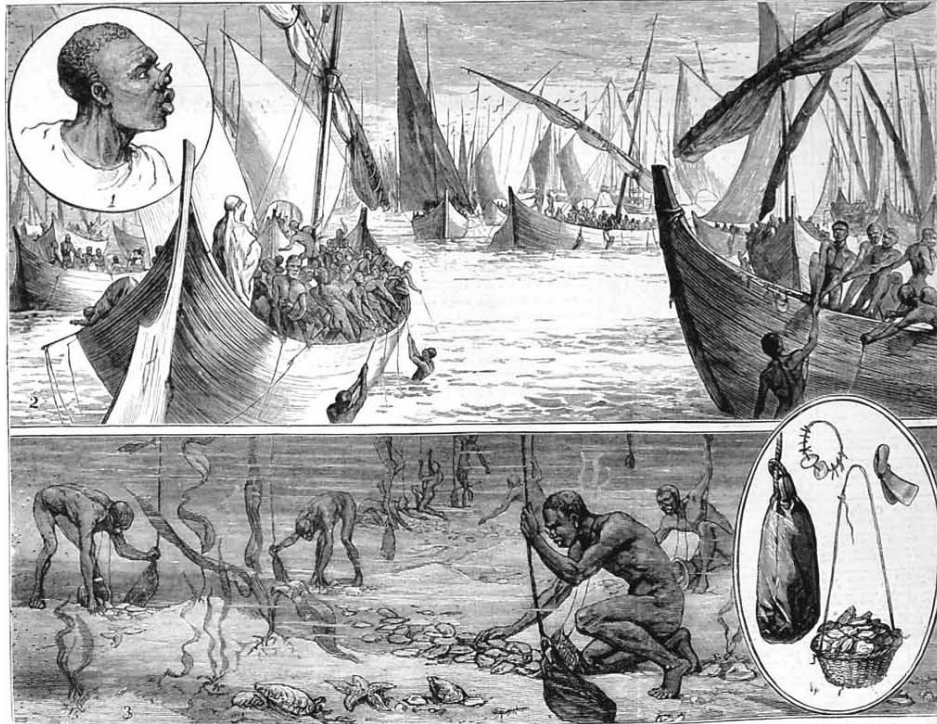


Figure 1: “The Pearl Fishery of the Persian Gulf”. Note. This image of African pearl divers in the Persian Gulf illustrates diving techniques similar to those used by enslaved divers in on the Pearl Coast. *The Graphic: An Illustrated Weekly Newspaper*, October 1, 1884. Courtesy Kevin Dawson.

These divers were entitled to a portion of the harvested pearls, which they were forced to sell to their owners. Describing these regulated commercial transactions, de Espinosa said, “[t]o this end on certain holidays they lay on a table or elsewhere excellent suits of clothes or other valuable articles of clothing, and the Negroes come out with the clothes, and their masters with riches.” Still, some divers accumulated enough wealth to purchase their freedom.

Pearl diving was strenuous, life-threatening work. An oceanic trench near the Pearl Coast channels cold water into the otherwise warm Caribbean waters, causing the year-round ocean temperature to hover in the 60s Fahrenheit. These cool waters induced exposure-related illnesses that sometimes culminated in death. Pearl divers eardrum sometimes burst so that “the blood gushed out of their Mouths and Noses when they came above Water to breath.” Sharks attacked divers, some drowned, while pirates kidnapped, injured, and killed others.

The wealth pearl divers generated did not lead to reduced workloads or emancipation. Rather, their valuable service encouraged their use in other marine occupations. When Spanish treasure galleons sank, enslaved divers were employed in salvage work. The Spanish began using enslaved African salvage divers after a twenty-eight-ship treasure fleet sailed into a hurricane in 1622, one day after leaving Havana. Aware that enslaved pearl divers dove to great depths, Gaspar de Vargas, who was in charge of the salvage operation, took twenty pearl divers to the wreck area. Freedom was promised to the first slave who found a sunken galleon. One day an excited diver surfaced, shouting that he had located the treasure ship *Santa Margarita*, and as promised, he was granted his freedom.

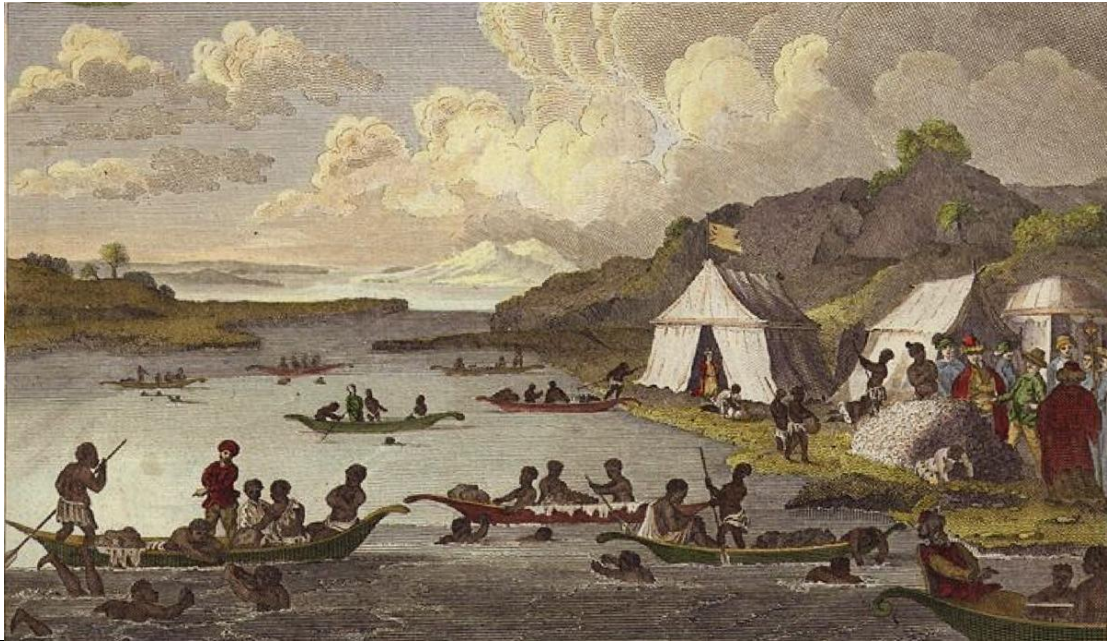


Figure 2: “A View of the Pearl Fishery”. Note. This probably exaggerated image of piles of pearls reflects European perceptions of the wealth that enslaved pearl divers harvested from the seabed. George Henry Millar, *The New and Universal System of Geography Being a Complete History and Description of the Whole World* (London: 1782). Courtesy Kevin Dawson.

These Spanish successes set the precedent for employing enslaved salvage divers. When slaveholders in the Bahamas, Bermuda, Cayman Islands, and Florida began “wrecking,” or salvaging goods from grounded or sunken ships, around the Florida Straits during the eighteenth century, they typically employed at least one slave who could dive to a depth of at least seventy feet.

In the antebellum American South, some bondpeople’s swimming abilities were used in clearing fisheries of debris that could ensnare fishing nets. Divers toiled on two types of fisheries. Some worked for their owners on waterways near the owners’ estates. Others were hired out to commercial fisheries located in coastal estuaries. Charles Ball, who by his own account was an expert swimmer, explained that during the winter their owner employed him and two other South Carolina field hands to clear debris from his fishery on the Congaree River. Though the work was cold and hard, it was a welcome escape from field labor.

In the mid-1850s, Frederick Law Olmsted penned a detailed description of North Carolina’s intercoastal fisheries that reveals enslaved divers’ dexterity. “The shad and herring fisheries upon the sounds and inlets of the North Carolina coast are an important branch of industry, and a source of considerable wealth,” he wrote. “The men employed in them are mainly negroes, slave and free.”

Work upon this fishery entailed long, dangerous hours. The most hazardous aspect was clearing the fishing grounds, which required the use of “seventy kegs of gunpowder.” In many places, coastal subsidence submerged swamps, leaving the “stumps of great cypress trees, not in the least decayed, yet protrude from the bottom of the sounds.” Enslaved divers were key to their removal. After divers had ascertained the debris’ position, “two large seine-boats are moored over it.” Divers then fastened a chain to the stump or log, which was then hoisted to the surface by a windlass rigged to the boats. When a stump would not yield and the power of the windlass pulled the boats’

sides “to the water’s edge,” a more dramatic technique was employed. With the stump still chained to the boats, a diver placed a long, iron-tipped spike on the stump, which sledgehammer-wielding slaves in the boats drove into it. Once an approximately ten-foot cavity was made, the pole was removed. A diver inserted a cylindrical canister containing several pounds of explosives into the void. The charge was detonated while the stump was still chained to the boats, and the resulting explosion, combined with the upward force of the chains, wrenched the stump free. The scene was described as follows:

the diver has come up, and is drawn into one of the boats—an iron rod is inserted in the mouth of the tube—all hands crouch low, and hold hard—the rod is let go—crack!—who—oosh! The sea swells, boils, and breaks upward. If the boats do not rise with it, they must sink; if they rise, and the chain does not break, the stump must rise with them. At the same moment the heart of cypress is riven; its furthest rootlets quiver; the very earth trembles, and loses courage to hold it.

These divers were highly valued, both for their skills and for the revenues they generated. “The success of the operation evidently depends mainly on the discretion and skill of the diver,” wrote Olmsted. “Some of them could remain under water, and work there to better advantage than others; but all were admirably skillful.” A fishery operator told Olmsted that the previous summer his divers had removed over one thousand stumps in this way.

Fishery divers largely worked free of direct white supervision. When not diving, “and, while the other hands are at work, they may lounge, or go to sleep in the boat.” Unlike most slaves, they were permitted to freely consume alcohol, and when “a diver displays unusual hardihood, skill, or perseverance, he is rewarded with whisky; or ...money.” Consequently, these divers earned substantial monetary bonuses from a “quarter to half a-dollar” a day, which sometimes enabled them to purchase their freedom. Though privileged, these divers were not lazy. Pride in workmanship and material rewards drove them to excel. Olmstead was told “*“the harder the work you give them to do, the better they like it”*” and even though they frequently suffered from “intermittent fevers” they could not be kept out of the water. He concluded that these bondmen worked arduously in a perilous, yet privileged, profession. “What! slaves eager to work, and working cheerfully, earnestly and skillfully?”, he exclaimed. “*Being for the time managed as freemen, their ambition stimulated by wages, suddenly they, too, reveal sterling manhood, and honor their Creator.*”

A close look at enslaved divers expands our understanding of the lives of skilled bondpeople. All of these divers enjoyed genuine privileges. Some were granted their freedom, and many accumulated enough material wealth to purchase their liberty. Fishery divers seem to have been highly trusted. They apparently worked away from white supervision and, while slaveholders typically refused to permit bondpeople to carry weapons, these divers were trained in the use of explosives.

While most skilled slaves’ positions of privileged exploitation depended upon abilities in Western artisanry, divers’ dexterities were African-based. Divers probably took great pride in their special skill. They knew that they could descend to depths few others could and that they had proficiencies whites did not possess. They braved cold waters, the dangers of underwater pressure, and sharks. Their diving ability not only made them exceptional among slaves, but they, along with Greek sponge divers and Japanese and Middle Eastern pearl divers, were an exception within the human race.

Conclusion

This study demonstrates that bondpeople's swimming activities touched their everyday lives in important ways. In an age when few Westerners could swim, many slaves mastered the skill. Recreational swimming allowed field slaves to relax and cleanse themselves. When bondpeople competed in swimming contests, they exhibited their skills and won material rewards, enhancing their prestige and self-esteem and increased the slave communities' sense of cohesion.

Though the work was grueling, enslaved underwater divers welcomed the escape from the monotonous, backbreaking labor their enslaved brothers and sisters performed in the agricultural fields of the Americas. But slavery, no matter the occupation, was always hard work, and the privileges divers enjoyed were restricted by the fetters of bondage. Being a slave, even an enslaved diver, meant subjugation, harsh treatment, and never-ending toil. Still, enslaved swimmers and divers used skills of African origin to make slavery a little more bearable, and sometimes obtained existences of privileged exploitation.

Epilogue

A historical understanding of the swimming abilities of people of African descent and inabilities of people of European descent raises several provocative issues concerning today's American society, providing fodder for further analysis. Since, as sources suggest, many early modern black people were adroit swimmers, why black Americans are at least fifty percent more likely to drown than white Americans and why are there statistically so few dominant African-American competitive swimmers today and? Myths purportedly answer these questions. Some speculate that the horrors of the Atlantic slave trade caused slaves to become terrified of the water, causing them to abandon swimming. Others claimed that slaveholders prevented slaves from learning this skill because it would facilitate escape. (If this was true then only slaveholders near the Ohio and possibly Potomac rivers would have discouraged slaves from swimming, for slaves living elsewhere could not have used this skill to secure their freedom). Yet, this paper indicates that many slaves born in both Africa and the Americas were strong swimmers. Still others have postulated that slaveholders' use of dunking to simulate drowning as a means of punishment discouraged black people from swimming. However, there is no evidence that this was a widely used punishment, and, if it discouraged slaves from swimming, then why do large numbers of Afro-Caribbean and Afro-Brazilian people swim. Furthermore, sources indicate that far more accused witches than slaves were dunked; yet white women's historical past in this regard does not constrain their swimming activities.

Historical phenomena occurring after the abolition of slavery seemingly caused many African Americans to reject swimming. Several factors apparently precipitated a decline in swimming in the African-American community. Segregation and cities' unwillingness to duplicate expensive recreational facilities for blacks, deprived black neighborhoods of swimming pools. Denied access to swimming pools, African-Americans also chose not to swim in natural waterways for several reasons. In many places in the Jim Crow South, as well as the North, racial violence transformed natural waterways from places of leisure to foreboding scenes of subjugation. Rural bodies of water were sites of conflict, violence, and subjection. Rivers and lakes were the final resting place for countless numbers of murdered black bodies. For African-American youth, barred from municipal swimming pools, rural lakes and streams became a dubious alternative. As African-Americans were denied access to desirable swimming amenities many apparently began to perceive swimming as a "white" or "un-black" practice, rendering it culturally unpopular.

While definitive conclusions about contemporary African-American swimming practices must await sustained research and analysis, historical sources unequivocally indicate that until fairly recently people of African descent were usually stronger, more efficient swimmers, and underwater divers than people of European descent, most of whom could not swim well enough to save their own lives. Many Africans incorporated swimming into numerous aspects of their work and recreational lives. Westerners debased the swimming dexterity of Africans, asserting the freestyle was unsophisticated and Africans' ability to swim was proof of their purported bestiality. Paradoxically, swimmers of African descent saved the lives of many drowning whites, while slaveholders profitably exploited bondpeople's underwater diving abilities.

Author's note

For further reading see: Kevin Dawson, "Enslaved Swimmers and Divers in the Atlantic World," in *The Journal of American History*, Vol. 92, No. 4 (March, 2006), pp. 1327-1355; Kevin Dawson, "Swimming, Surfing, and Underwater Diving in Early Modern Atlantic Africa and the African Diaspora," Carina Ray and Jeremy Rich, eds., *Navigating African Maritime History* (Published by the Research in Maritime History book series, Memorial University of Newfoundland Press, 2009), pp. 81-116.

Swimming, Surfing, and Underwater Diving in Atlantic Africa¹

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Abstract

Today most people probably do not consider West Africa to be a place with a rich swimming tradition. Yet, it is a region dominated by water. It is bordered by thousands of miles of coastline, bisected by countless rivers and streams, and pockmarked by numerous lakes. In these waters, Africans became proficient swimmers and underwater divers, perfecting the freestyle at a time when few Europeans could swim. This talk examines Africans' swimming history, considering how water was a cultural space and swimming, underwater diving, and surfing were incorporated into social, cultural, political, and economic activities. Most Africans were strong swimmers, learning to swim as young children. People swam as part of their work and recreational activities and it was used to demonstrate people's bravery, skills, and endurance. With the arrival of Europeans on the African coast in the 15th century swimming also shaped relationships between members of these two groups, as Europeans became reliant on Africans' swimming skills and Africans used these abilities to help resist European attempts to dominate the region. As enslaved Africans were forcibly transported to the New World they carried swimming and diving abilities with them where they similarly shaped social, cultural, and economic developments.

Key words: swimming, surfing, diving, history.

Long before the Portuguese sailed into Sub-Saharan Africa in 1444, many Africans had become skilled swimmers, divers, and surfers. During one of the first recorded encounters the Portuguese had with Africans they were amazed by their swimming and underwater diving abilities. Portuguese navigator João Gonçalves Zarco noted how his sailors had considerable difficulty capturing Senegambian canoemen after they leapt into the water to avoid capture, saying "our men had very great toil in the capture of those who were swimming, for they dived like cormorants, so that they could not get hold of them." Up into the early twentieth century white onlookers continued to be amazed by the swimming and underwater diving abilities of Atlantic Africans.²

From the fifteenth through the nineteenth century, the swimming and underwater diving abilities of people of African descent typically surpassed those of Westerners. Indeed, sources indicate that most whites, including sailors, could not swim. For example, in 1838, *The Sailor's Magazine*, a New York City missionary magazine, published the inscription of a city placard titled "Swimming." It read: "For want of knowledge of this noble art thousands are annually sacrificed, and every fresh victim calls more strongly upon the best feelings of those who have the power to draw the attention of such persons as may be likely to require this art, to the simple fact, that there is no difficulty in floating or swimming."

Atlantic Africa possesses a rich swimming tradition. It is a region dominated by water. It is bordered by thousands of miles of coastline, bisected by countless rivers and streams, and pockmarked by numerous lakes. Mastery of the water permitted Africans to transform what would have otherwise been a backdrop for terrestrial events into cultural and political spaces used to shape social relationships between Africans belonging to different ethnic groups, as well as between Africans and Europeans. This essay documents the swimming, surfing, and underwater diving skills of Atlantic Africans. First, it compares the swimming abilities and techniques of Africans and Westerners to demonstrate that people of African descent were stronger swimmers than Westerners.

Then it considers how Africans incorporated swimming into their work and recreational activities.

Divergent Swimming Styles: The African Freestyle and European Breaststroke

Most early Westerners could not swim and documents suggest that when whites swam they usually kept their heads above water while using variants of the breaststroke, rendering their stroke akin to the dogpaddle. Conversely, Africans used variants of the freestyle, permitting them to incorporate swimming into many daily activities. With alternate over-arm strokes combined with fast scissor-kicks, the freestyle is the strongest and swiftest swimming style. Travelers mentioned that considerable numbers of Africans swam, that they were better swimmers than most Europeans, and that they preferred the freestyle.

Most travelers to Atlantic Africa reported that Africans were sound swimmers; several also noted that they were better swimmers than Europeans and described their use of the freestyle. In 1455 Venetian merchant, Alvise de Cadamosto, expressed that Africans living along the Senegal River “are the most expert swimmers in the world.” In the late sixteenth century, after Dutch adventurer Pieter de Marees commented on Gold Coast Africans’ freestyle technique he wrote “they can swim very fast, generally easily outdoing people of our nation in swimming and diving.” Describing the freestyle used by Gold Coast peoples and the breaststroke employed by Europeans, Jean Barbot asserted “the Blacks of Mina [Elmina] out-do all others at the coast in dexterity of swimming, throwing one [arm] after another forward, as if they were paddling, and not extending their arms equally, and striking with them both together, as Europeans do.” Similarly, Asante men and women, at Lake Bosomtwe, located about a hundred miles inland, used the freestyle. According to Robert Rattray, Asante “men are very fine swimmers and some show magnificent muscular development. They swim either the ordinary breast stroke [like Europeans] or a double overarm with a scissor-like kick of the legs.”

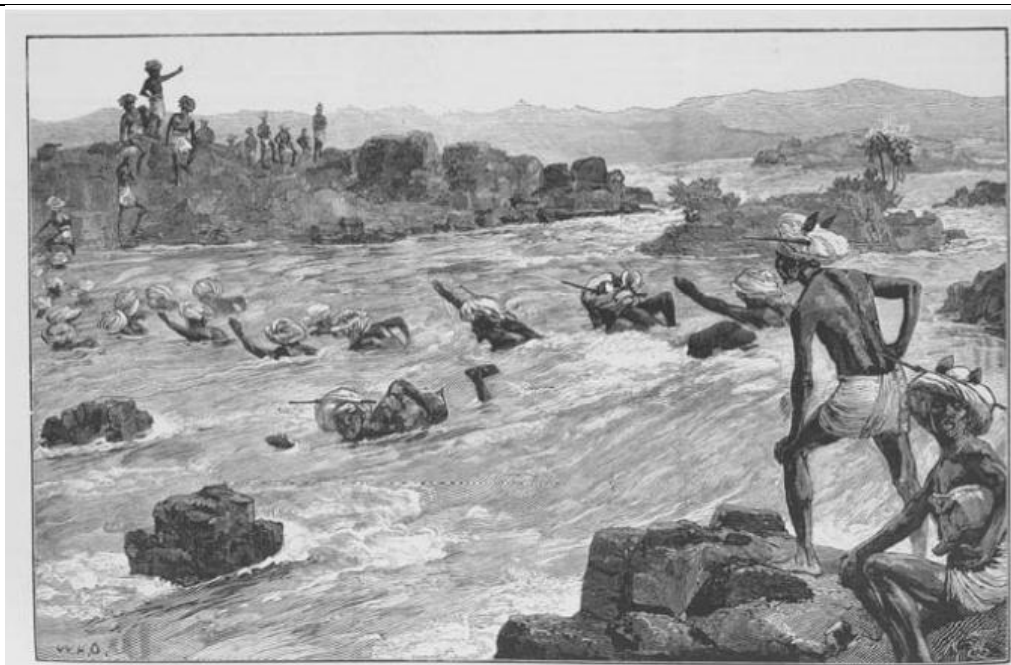


Figure 1: “Dongola Men Swimming across the Cataract.” This image shows some of the approximately 1500 Dongola employed by the British during the 1884 Nile Expedition swimming across rapids. Note the use of the freestyle. Source: *Illustrated London News*, October 4, 1884. Courtesy Kevin Dawson.

Maritime disasters juxtaposed the swimming prowess of people of African descent and the inabilities of those of European descent. Typically when a boat sank, Africans were able to save themselves. One of two things usually happened to the whites aboard a stricken boat—either Africans saved them or they drowned. U.S. Naval officer Horatio Bridge provides examples of both. On December 11, 1843 Bridge noted that marines debarking in Liberia upset the canoe they traveled in. “[U]nable to swim, [one] was upheld by a Krooman.” On October 15, 1844, Bridge explained that five whites and five *Kru* were aboard a boat that “capsized and sunk. The five Kroomen saved themselves, by swimming, until picked up by a canoe; the five whites were lost.” Significantly, the author found no account in which a white person swam to save the life of a drowning African.

Canoemen’s strong swimming abilities and Westerners relative inability forced whites to respect Africans in ways that cut across assertions that Africans were whites’ inferiors. Western rowboats usually could not land or launch through the African surf. Consequently, Westerners relied on African canoemen to transport virtually all the goods and people (including the twelve million slaves exported from Africa) between and shore. Prudent Europeans realized that their lives could be dependent on canoemen’s swimming abilities, and even if they were in Africa to purchase slaves it was unwise to express racist sentiments towards canoemen or to otherwise insult them. Whether intentionally or accidentally, canoes manned by the best watermen could be overset in the surf and offended canoemen could swim away from rather than towards drowning Europeans. In 1693, the slave ship captain Thomas Phillips advised Europeans to treat canoemen with respect, saying “we venture drowning every time we go ashore and come off again, the canoos frequently over-setting, but the canoo-men are such excellent divers and swimmers, that they preserve the lives of those they have any kindness for, but such as they have any displeasure to they will let shift for themselves, therefore ’tis very prudent for all commanders to be kind and obliging to them, their lives lying in their hands, which they can make them lose at pleasure, and impute all to accident, and they could not help it; and there are no amends to be had.”

Sources indicate that Europeans stopped swimming for a number of reasons. During the medieval period, swimming came to be regarded as a fruitless struggle against nature and changes in warfare favoring heavily armored knights precipitated a shift in military tactics and, in turn, attitudes regarding the utility of swimming. Concurrently, many European doctors urged people to avoid swimming because immersion in water purportedly upset the body’s natural balance (called the four humours), causing diseases, like bubonic plague and cholera,. Since swimming was generally performed nude, Catholic Church officials discouraged it for moral reasons. By the fifteenth century, the freestyle was forgotten, and the few Europeans who swam used the breaststroke, which remained the preferred style of swimming into the twentieth century.

Westerners were averse to the freestyle because it generated considerably more splashing than the breaststroke, and according to theorists, like Benjamin Franklin and Theodorus Mason, swimming “should be smooth and gentle.” Since splashing was deemed unsophisticated, the freestyle, was regarded as unrefined when compared to the sedate and harmonious breaststroke. Thus, even though the breaststroke is one of the most rudimentary strokes, Westerners ironically regarded it as the most refined and graceful stroke.

Another striking difference between African and Western swimming practices was that many African women swam, while Western women generally did not. This is because most people swam nude, and Western standards of modesty did not tolerate the public disrobing of white women. Many African women, however, were not so constrained. Because Africans felt less shame than Westerners about publicly revealing

their bodies, African women could disrobe when swimming in the presence of men without shaming themselves.

Swimming in Atlantic Africa

After Africans learned to swim at a young age they incorporated this skill into numerous activities. While there is no evidence indicating at what age interior peoples learned to swim, travelers reported that many coastal Africans learned as toddlers, either right after learning to walk, between the ages of ten to fourteen months, or after they were weaned at approximately two to three years of age. “Once the children begin to walk by themselves, they soon go to the water in order to learn how to swim and to walk in the water,” wrote Pieter de Marees. William Bosman commented “the Mother gives the Infant suck for two or three Years; [when] over... they [are] able to go . . . to the Sea-side to learn to swim.”

After parents taught them the fundamentals of swimming, children continued to improve their skills. While at Elmina, Jean Barbot saw “several hundred...boys and girls sporting together before the beach, and in many places among the rolling and breaking waves, learning to swim.” He then contended that Africans’ strong swimming abilities “proceed from their being brought up, both men and women from their infancy, to swim like fishes; and that, with the constant exercise renders them so dexterous.”

Some societies were literally worlds built on water, providing their members with intimate interactions with surrounding waterways. In many places water dominates the land during much or all of the year, compelling community members to swim on a daily basis. On flood plains in the Congo River Basin and in large shallow lakes throughout Africa people built their homes on stilts and often swam between dwellings and as they set and collected fish traps.



Figure 3: “Lake Dwelling on Lake Moheya”. Note: This image illustrates how Africans living in lacustrine stilt villages swam rather than walked to neighbor’s homes. Note the use of the freestyle. *Illustrated London News*, April 22 2876. Courtesy Kevin Dawson.

Many Africans, especially canoemen and fishermen, incorporated swimming into daily work activities. After paddling for prolonged periods canoemen often jumped

overboard and swam about to cool off and relax aching muscles. As canoes were launched from the beach, canoemen often swam along side to help keep their bows pointed towards oncoming waves to prevent them from overturning. When canoes overturned in the surf, they swam to save their lives, those of white passengers, and, as Jean Barbot reported, “being excellent swimmers and divers recover goods from the upset canoes.”

Work-Related Swimming and Underwater Diving

When European ships sank in African waters, African salvage divers recovered sunken goods. Many African rulers demonstrated their control over coastal waters by claiming ownership of distressed ships, their cargos, and their crews, deploying divers to salvage goods from these vessels. Unfortunately, there are no known accounts of Africans’ underwater salvage operations. However, we can conjecture from accounts of salvage operations elsewhere in the Atlantic world that they probably held rock weights enabling them to quickly descend without expending valuable oxygen swimming down. Divers likely carried small baskets attached by ropes to canoes above in which they placed small objects. Ropes were probably attached to larger objects so they could be hoisted to the surface.

Sources indicate that Africans incorporated swimming and diving into other occupations. In 1863, Richard Burton noted that Africans around Carpenter Rock, Sierra Leone dove for oysters, saying: “It is celebrated for its excellent rock oysters, which are brought up in quantities by divers.” When seas were too high to canoes launch or land through the surf, intrepid swimmers sometimes carried letters between ship-and-shore. While in Senegal during the 1450s, Alvise de Cadamosto detailed the bravery and swimming abilities of one of the first of these letter carriers. For over an hour this swimmer battled the surf, side currents, winds, and storm-swept seas to reach a ship anchored some three miles offshore, before swimming ashore “with a reply.” Cadamosto praised this man, exclaiming: “This to me was a marvelous action, and I concluded that these coast negroes are indeed the finest swimmers in the world.”

Divers played a central role in some states’ political and economic development by obtaining different forms of currency and export commodities. Cowry shells were widely used as currency throughout Atlantic Africa. Many of these shells were harvested off Luanda Island, located in the Kingdom of Kongo. Duarte Lopes observed women diving to gather these shells, writing: “This island furnishes the money used by the King of Congo and neighboring people; for along its shore women dive under water, a depth of two yards and more, and filling their baskets with sand, they sift out certain small shellfish, called Lumanche.” Elsewhere others dove for gold, a widely sought after trade commodity, as documented by Jean Barbot. “The Kingdom of Sakoo is said to end at this River Mancu, and the Kingdom of Atzyn or Axim or Achem [Gold Coast] is said to begin there. This river is broad and extends far inland into Igwira country. It is full of waterfalls and rocks, which make it unnavigable; it produces much gold, which the blacks fish for, diving under the rocks and into the waterfalls.”

The arrival of Europeans permitted some coastal peoples to lucratively employ their diving skills by scraping barnacles from the hulls of encrusted ships, which created drag, slowing their progress. When the brig *John H. Jones* arrived at Monrovia, Liberia in December 1861, *Kru* watermen scoured the ship’s hull. Impressed by these divers’ lung capacity, Charles Stewart penned: “We also employed them to scrape the barnacles from the bottom of the vessel several times, their power of remaining underwater being truly remarkable.”

Accounts of interior Africa’s interior indicate that many upcountry peoples could swim. Olaudah Equiano, who himself could not swim, commented that some interior

peoples were relatively adroit. While in Nigeria's interior he saw people swimming in a large river, saying: "I was often very much astonished to see some of the women, as well as the men, jump into the water, dive to the bottom, come up again, and swim about."

Similarly, when Rattray visited Lake Bosumtwi, he noted that the Asante were adept in both the breaststroke and freestyle, which they used to cross the lake and catch fish. Asante living around Lake Bosumtwi relied heavily upon their swimming and diving skills to catch fish because the "anthropomorphic lake god," Twi, had many taboos associated with it use, including the use boats. In keeping with divine sanctions, the Asante either swam or used paddleboards, called *padua*, or *mpadua* in the plural form, to traverse the lake and catch fish. Fishermen used reeds to construct fish baskets or traps, called *Ntakwa*, that were "oblong-shaped mat[s] woven of a simple criss-cross pattern" folded in a conical shape. Grasping the wider end of the cone-shaped trap, a "fisherman dives into the water, drags it along the bottom or among a shoal of fish, and keeping water pressure against the pocket-end keeps the fish that enter till he comes to the surface." Larger versions of these cone-shaped fish baskets were made by weaving several of the *Ntakwa* reed mats together to make a large mat called a *Kotokuo Kese*, which were sewn into a cone shape. The *Kotokuo Kese* was then taken by a raft, made by lashing several *mpadua* together, which was propelled by swimmers to a depth that permitted the open end of the net's mouth to lie on the lake's bottom, while the "pocket-end is just on the surface." Five or six fishermen, each on their own *padua* scared fish into the *Kotokuo Kese* by lining up "about twenty yards from the net and then simultaneously start off at top speed, yelling '*padua! padua!*' and splashing and beating the water." When they reached the mouth of the net they dove off their paddleboards, swam down, picked up the net's open end, and brought it to the surface, trapping the fish.

Mungo Park's journeys deep into Africa's interior reveal that many inland peoples were strong swimmers. In 1796, while over five hundred miles inland, Park observed a fisherman dive underwater to collect and set fish traps. The fisherman's lung capacity was so great that he remained submerged "for such a length of time, that I thought he had actually drowned himself." Park and the other Europeans in his party ultimately died because they could not swim. During a battle on the Niger River against Africans, they drowned after jumping overboard. Only a canoeman and Amandi Fatouma, their interpreter and guide, lived to carry Park's journal back to British officials and tell of his demise.

Africans' underwater diving abilities served as a spectator sport for visiting Westerners and sources of income for divers. Today at many tropical locations throughout the world, local children impress tourists while earning money by diving for coins that tourists toss into the water from docks or boats. The same was true in early Africa. William Bosman noted the underwater diving displays of Africans from the Ivory and Grain Coasts, writing: "You are probably acquainted with the expert Swimming and Diving of these *Negroes*, which I have several times seen with Surprise. Whenever they were on Board, and I threw a string of Coral, or any thing else into the Sea, one of them would immediately dive after it, and tho' almost got to the bottom fetch it up again. This they seldom missed of, and were sure of what they brought up as their Reward."

Africans equally demonstrated their lung capacity when pursuing sea turtles. While John Lawrence was off the Librian coast in 1844 he documented how three *Kru* sailors dove into the water to catch a turtle, saying they "divested themselves of their clothing in a twinkling and were in the Ocean in chase of him; but the Turtle dived when they got within the space of forty of fifty feet. But the chase did not end here, and a submarine pursuit took place which was astonishing as well as amusing to witness; one would hardly suppose that men could acquire such perfection in swimming as they practice."



Figure 4: “Somoli Boys Diving for Money at Aden. While this scene occurred in East Africa it is illustrative of events that occurred throughout Atlantic Africa. Note. Note the use of the freestyle by the boy in the right of the image. *The Graphic: An Illustrated weekly Newspaper*, November 27, 1875. Courtesy Kevin Dawson.

Swimming was incorporated into some Africans’ forms of trial-by-ordeal. After visiting Ouidah in 1698, Bosman wrote that if “any Person is accused of any Crime and denies the Fact” they could clear their name by trying to swim across a river “to which is ascribed the strange Quality of immediately drowning all the Guilty Persons which are thrown into it.” However, since all the Africans in the area were “very expert, I never heard that this River ever yet convicted any Person; for they all come out.” Some Ibo communities in present day Nigeria used a similar method to determine guilt or innocence. However, the rivers that the accused traversed were populated with sharks.

Water forms of trial-by-ordeal also juxtapose African and European swimming practices and beliefs about water. For Africans, culpability was determined by one’s inability to swim. Conversely, white women’s ability to swim was regarded as proof that they were witches. Witch-hunts occurred throughout Europe and the Americas from the 1480s through the 1750s. Many women accused of witchcraft were subjected to swimming test in which they were thrown into a body of water. If a woman could swim it was concluded that the Devil buoyed her up or the water, which was blessed beforehand, rejected her. Regardless, swimming proved her guilt and she was subsequently executed. If she could not swim she was deemed innocent, but often drowned during the process.

Recreational Surfing and Swimming

After learning to swim at an early age, many coastal and interior African men and women incorporated swimming into their recreational lives. Africans swam as a form of relaxation and incorporated swimming into different forms of competition. The swimming abilities of people in Senegal, the Ivory Coast, Ghana, and Cameroon, were so strong that they were able to invent surfing.

Surfing in Atlantic Africa

The first record of surfing in Africa, and probably the world, was written in the 1640s, over 125 years before Europeans reported on this sport in Polynesia. Surfing was independently invented throughout Polynesia, in Peru, and parts of Atlantic Africa. Today, one surfs while standing up. Traditionally, however, one could surf in a prone, kneeling, sitting, or standing position.

Michael Hemmersam, who was not the most careful observer and often provided rather shallow remarks, wrote the first known account of surfing in Africa in the 1640s. Believing that he was watching Gold Coast children learn to swim, Hemmersam wrote parents “tie their children to boards and throw them into the water.” Jean Barbot wrote the next known account in 1679 when he noted that children at Elmina learned “to swim, on bits of boards, or small bundles of rushes, fasten’d under their stomachs, which is a good diversion to the spectators.” African parents did not teach their children to swim by tying them to boards and throwing them in the surf. As previously documented, many Africans learned to swim at an earlier age and with more positive reinforcement. Additionally, such swim lessons would be highly dangerous, resulting in large numbers of drowned children, rather than populations of proficient swimmers. These children were undoubtedly doing what many at Cape Coast, Elmina, and elsewhere still do, which is to catch waves while laying on small boards.

Later accounts of surfing are unambiguous. On November 16, 1834, while at Accra, Ghana, James Edward Alexander wrote: “From the beach, meanwhile, might be seen boys swimming into the sea, with light boards under their stomachs. They waited for a surf; and came rolling like a cloud on top of it.” In 1861, Thomas J. Hutchinson published the most comprehensive description of African surfing when he detailed fishermen surfing in present-day southern Cameroon. These fishermen caught waves in small, light-weight dugout canoes that were “no more than six feet in length, fourteen to sixteen inches in width, and from four to six inches in depth . . . [and] being made of light wood, are carried from the sea on the shoulders of their owner,” making them shorter than many of today’s modern surfboards and many types of ancient Hawaiian surfboards.

Blood Sports

Africans and New World slaves fused swimming to blood sports when they fought crocodiles, hippopotami, and sharks. Jean Labat narrated the battles Africans wages with crocodiles, saying: “Notwithstanding the Fierceness of this Animal, the Negroes will venture to attack him if he be in shallow Water: For this Purpose they wrap a piece of Ox-Hide about their left Arm, and taking a Bayonet, or Assagaye [assegai], in their right Hand,” they wade into the water in hopes of stabbing the crocodile in the eye or throat before they themselves are destroyed. Even more daring hunters swam to harpoon hippopotami. In 1862, Samuel Baker watched as two hunters swam into a river to harpoon a hippopotamus basking on an islet. They swam underwater until they were within a few feet of the islet. Rising together they “hurled their harpoons, and swimming for some distance under water, they came to the surface and hastened to the shore lest an infuriated hippopotamus should follow them.” Africans’ swimming dexterity and daring were also forcefully exhibited when they dove beneath the water to fight sharks with knives. One Frenchman described Africans fighting sharks, saying “they dive underneath, and cut open his Belly.” Clearly these marine battles were performed to impress white and black observers who closely observed their swimming abilities, bravery, strength, and perhaps masculinity from the safety of shore or a boat. Like other forms of spectator sport, these displays undoubtedly enhanced their reputations and community standings.

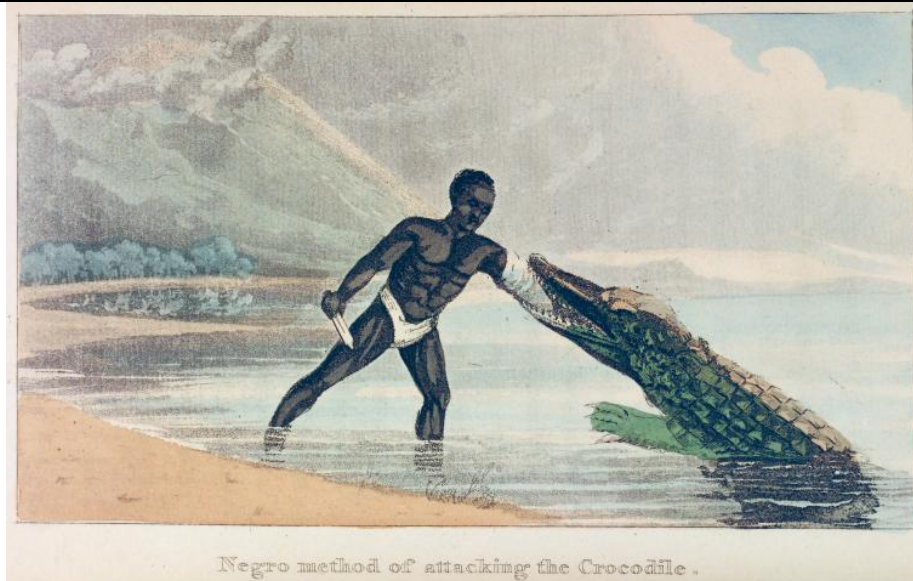


Figure 5: This image depicts how some Africans in Senegal killed crocodiles, apparently to showcase their strength and bravery. Note. Frederic Shobel, *The World in Miniature; Africa, Containing a Description of the Manners and Customs, with Some Historical Particulars of the Moors of the Zahara, and of the Nations between the Rivers Senegal and Gambia* (London, 1821), Vol. IV, 165 opposite. Courtesy Kevin Dawson.

Conclusion

Atlantic Africans have a rich swimming tradition. Many Africans swam on a daily basis, permitting them to intimately interact with their environment. Africans' swimming abilities permitted them to generate incomes, preserve their lives during maritime disasters, and demonstrate their skills and bravery. Africans' swim prowess and Europeans' inabilities also shaped relationships between these two groups. When European ships sank in African waters, European survivors were forced to helplessly watch as African salvage divers recovered wealth that had once belonged to them. Similarly, even though Europeans regarded Africans as their inferiors they were compelled to respect African canoemen who, during maritime accidents, were often their only source of salvation. As enslaved Africans were cargoed off to the Americas, many took these skills with them, where they similarly incorporated swimming into their work and recreational activities.

Author's notes

¹Atlantic Africa refers to the region of coastal, littoral, and interior Africa that came to be oriented towards the Atlantic world through political, commercial, military, and cultural developments. It roughly stretches from Senegal's northern border to Angola's southern border and extends approximately one thousand miles inland.

²For further reading see: Kevin Dawson, "Enslaved Swimmers and Divers in the Atlantic World," in *The Journal of American History*, Vol. 92, No. 4 (March, 2006), pp. 1327-1355; Kevin Dawson, "Swimming, Surfing, and Underwater Diving in Early Modern Atlantic Africa and the African Diaspora," Carina Ray and Jeremy Rich, eds., *Navigating African Maritime History* (Published by the Research in Maritime History book series, Memorial University of Newfoundland Press, 2009), pp. 81-116.

“Having the Necessities”: The Remarkable Story of the DuSable High School Swim Team of Chicago, 1935-1952

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Abstract

Introduction: The subject of African-Americans and swimming has been a controversial one in the last several decades, one that gives rise to this narrative of DuSable’s success in swimming. Placed in the context of cultural attitudes relating to African-Americans and swimming, the story of the team’s success is just one of many designed to dispel the widespread notion that African Americans are not interested swimmers and also dispel myths relating to so-called biological impediments to blacks’ ability to swim. **Method:** I conducted an extensive literature review of the secondary literature, and some primary sources, on swimming as it relates to African Americans and other people of color on issues of race and athletics, both popular and academic. The remainder of the paper was built on the examination of primary sources, publications and interviews. I examined the African-American press for articles relating to general historical issues involving blacks and swimming, notably the *Chicago Defender* and the *Baltimore Afro-American*. I researched the *Chicago Defender*, local mainstream newspapers, and DuSable High School yearbooks in the Chicago Board of Education archives, and interviewed former DuSable swimmers, to build the DuSable narrative. Other high school yearbooks were also consulted. **Results-Discussion:** This paper built a narrative relating to the DuSable High School swimming program that extends from 1935 to 1976 and placed it in context of how the subject of African Americans and swimming was and is perceived both popularly and in the academic world. The story of the DuSable swim program should be understood in the context of sport history, which in its narratives on race has been inordinately and long devoted to the strictly empirical “recovery” of the missing history of African American achievement. The DuSable swim program and the great athletes it produced in the late 1940s and early 1950s, should now be deemed “recovered,” thus constituting an important legacy of African American achievement in swimming history that we should forever remember and recognize. **Summary:** Besides uncovering the story of the DuSable High School competitive swimming program that adds to the literature of African American achievement in swimming, the paper revealed a variety of ironies on the subject, notably my own examination of the subject. My very presentation in making DuSable High’s achievement a “remarkable story” (as in the title) is ironic, appearing to contain the racially insensitive assumption that it is remarkable that these African American can swim so competitively. Another irony is that this DuSable narrative exists in 2012 but not back in the 1940s, precisely because of what has happened in the last few decades in the black community, and in another finding of this paper, where African Americans appear to show less interest in swimming than in the past.

Key words: swimming, history.

This is a story of an all-black high school in Chicago, DuSable, which for some 15 years, from the late 1930s to the early 1950s, earned plaudits in the city’s black community as a swimming power. The team’s success in these years belied some common stereotypes and prejudices long held in American society concerning African-Americans and swimming.

Blacks and Swimming Overview

Before we get to this story, however, it is important to review the context in which it is being told, and give a look at popular and academic perceptions—true and false—relating to the subject of African Americans and the sport of swimming. The *Journal of American History* in 2006 ran a fascinating article by Kevin Dawson, “Enslaved Swimmers and Divers in the Atlantic World.” The author uncovered a wealth of information on the superb swimming and diving abilities of black people, and wrote an epilogue in which he raised the question that with all this previous evidence of black proficiency in swimming in slave owning days what can explain the perception today that swimming is simply not a black sport.¹

Dawson mentioned Al Campanis’ infamous interview on Ted Koppel’s *Nightline* show in April of 1987, when the LA Dodgers’ vice president made the comment that blacks “may not have some of the necessities to be...a field manager or, perhaps, a general manager.” He shortly followed with the comment: “Why are black people not good swimmers? Because they don’t have the buoyancy.”²

Campanis was not the only person to have this perception about a supposed biological impediment for blacks in swimming. Martin Kane in a *Sports Illustrated* article from 1971 also suggested that the historically poor showing of blacks in swimming could well be a result of a lack of buoyancy. Other articles in the late 1960s and early 1970s likewise discussed African-Americans, swimming, and the buoyancy issue. These studies have since been widely discredited, and is now referred to as a “buoyancy myth.” Of particular interest were the comments of Malachi Cunningham Jr., a swimming coach of an African American team in Philadelphia, concluded that whether or not buoyancy was a factor in the low interest and performance of blacks in swimming, “something had to be done to offer swimming to a larger segment of the Black community.”³

Kane interviewed famed Indiana coach, Doc Councilman, who downplayed the buoyancy factor, and cited instead the lack of opportunity that had been afforded blacks in swimming. Historically in black neighborhoods swimming facilities have been less abundant than in white communities. In recent years, many blacks, who tend to be of more modest means, have been shut out from the top end of swimming competition with the rise of expensive private swim clubs, designed to give year-round training for the development of Olympic competitors.⁴

More importantly, historically, public swimming facilities have been often barred to blacks, particularly in the South, but certainly all too common in the North. The *Chicago Defender* is replete with decades’ worth of stories from both the South and the North over racial conflict engendered by the breaking of barriers or the attempt to break barriers in the use of swimming facilities. The worst Chicago race riot in its history, in 1919, erupted over a black youth transgressing the segregated space that whites had created over the water on the Lake Michigan beach.⁵

Historically blacks have not done well in swimming, and this is considered a health issue by the U.S. government’s National Center for Injury Prevention and Control. Drowning statistics for 2002-2003 showed that the drowning rate for African American children, ages 5 to 19 years, was 2.3 times the rate of white children. The National Center attributed this higher African American rate of drowning to a widespread lack of swimming ability in the black community. The common perception today is that most African Americans do not like to swim, are sinkers, and have less swimming ability.⁶

As a result of these societal perceptions, the DuSable story falls into a certain narrative in writing about black achievement in swimming. What writers have been doing to counter the widespread notion that African Americans do not want to swim and cannot swim is to show a black swim program that belies those suppositions. In his 1989 book *Necessities*, for example, author Hoose in his ironically titled chapter, “Buoyancy,”

tells the story of the successful all-black Barracudas Swim Club from Cleveland (Hoose, 1989). In 2008, a motion picture called *Pride* told of another success of a black swimming club program in inner city Philadelphia (Greenleese, 2007). There are many more of these narratives, and a representative and notable one was that of DuSable High from 1935 to 1952.⁷

DuSable's competitive swimming program was certainly not unique at this time. Elsewhere on the interscholastic level, the segregated schools of Baltimore and Washington, D.C., had been competing since 1929. Many of the Negro colleges had strong swimming programs, and beginning in 1948, the Colored Intercollegiate Athletic Association began conducting an annual tournament.⁸

Building the Dusable Program

DuSable High opened its doors in the fall of 1935, in the heart of Chicago's black South Side. The high school was built with a swimming pool, and its athletic department immediately instituted an ambitious swimming program under Coach William T. Mackie.⁹

Mackie introduced a 10-mile swimming marathon for the DuSable swim team. In this program each student swam so many lengths of the 60-foot pool every day until they reached 9 $\frac{3}{4}$ miles. Then in the last quarter mile they would compete in a race for their positions on the team. Graduates of the 10-mile marathon who finished first, second, or third would use that achievement to try out as life guards for the Chicago Park District to work at swimming venues in the black community—notably the Washington Park pool, the Wabash Avenue YMCA, and the 31st Street Beach, on Lake Michigan. The 10-mile marathon program helped immensely to build a competitive swim team at the school, no doubt what Mackie intended. The team practiced every afternoon, and on Tuesdays and Thursdays had an extra practice at 8:00 AM. Reflective of the hard practices the coach put the team through, the team adopted the name Sea Horses.¹⁰

The school's competition in its first year was with non-school teams, namely the Wabash YMCA and the Boys Club, both local black institutions. No doubt a racial issue was involved, as many white high school swim teams then shunned competition with a black school.¹¹

Meanwhile, another Chicago school, Lane Tech, emerged as a swimming power around the same time, under Coach John Newman. Lane was the technical school for the entire North Side, and by the early 1940s, about 7,000 to 7,500 students attended the school, all male. Each year Newman had the pick of some 2,000 freshman boys enrolled in the swim classes. DuSable, in contrast, had traditional enrollment boundaries for both boys and girls, with total enrollment of around 3,500 to 4,000 students, so there were hardly 2,000 boys in the entire school.¹²

DuSable's success in swimming began with an undefeated dual meet season, beginning a streak of 53 dual-meet victories that lasted until 1943. The *Chicago Defender* started giving DuSable headlines in February of 1940 when the school's dual-meet string reached 23 straight. The streak became a recurring story in the paper. While obviously a laudable achievement, DuSable never had dual meet competition with any of the top area teams, notably Lane Tech in Chicago and New Trier in the suburbs. The lack of this top-notch competition could have been due both to racism and to other factors, such as the isolation of DuSable from the suburban competition. Racism was no doubt a factor. All the other schools that competed against DuSable were essentially white high schools in the city, which to their credit overcame prevailing racist views of the day.¹³

Lane Tech during these years emerged as the top team in the state, winning the state championship nine out of ten years from 1938 through 1947. The school by the late 1930s overwhelmingly dominated the Chicago Public League twice-yearly league meets,

held respectively in December and April. The 20-yard pool competition was held in December and the 25-yard pool competition was held in April. Rarely was Lane Tech challenged for the twice yearly titles. But one school did, DuSable, but it would take a while.¹⁴

Racism in the Chicago Public League schools brought the issue of DuSable's swim team competing with other schools to a boil in November 1941. The league's program was based on just the December and April all-schools meets, by which no school was barred. Dual meets among the schools were conducted on their own, but it could be somewhat intermittent. Thus, many of the swimming coaches on the South Side felt the need for more regular competition and decided to form a dual-meet league. These schools included five predominantly white, one majority African American high, as well as the virtually all-black Phillips and DuSable schools.

Some of the coaches of these schools had resisted scheduling DuSable in the past and were not willing to let Phillips and DuSable into the newly formed league. The *Chicago Defender* reported, "There have been rumors that although Phillips and DuSable will invite teams to their tanks, few invitations to go to other schools in Chicago will be extended to them...the crux of the whole thing is that these coaches—not the boys—don't want competition against Negro swimmers." One of the most virulent coaches against competition with DuSable and Phillips was ironically the Englewood coach, who apparently was leading an all-white team in a high school that was nearly 60 percent black. A few weeks later, however, the Chicago Board of Education put an end to the "lily-white swim league," as the *Chicago Defender* headlined it. This flare-up opened up a window to what DuSable faced each year in fielding its swimming team.¹⁵

DuSable was highly competitive with the white high school teams it did face, and during this time produced some top-flight swimmers such as Fred Lyda, Wesley Ward, and Jack Hall. In February 1943, the team beat the Harrison team 42 to 24 for its 53rd straight dual-meet win. A few days after the meet, Coach Mackie was inducted into the Army. There were no more reports of a dual-meet string. With Mackie's absence, DuSable continued to field a team, but without the same rigorous training. The 10-mile marathon program, for instance, was abandoned.¹⁶

Acme of the Dusable Program

In the 1945-46 season, Coach Mackie returned to DuSable. He reinstituted the 10-mile marathon and soon brought the school to even greater prominence in the Chicago swim world. The first two years he lost a few contests, but in the 1947-48 season, the school went undefeated in dual meets and won the championship of the Central Section. By this time, the Board of Education had instituted dual-meet leagues to supplement the fall and spring meets. DuSable repeated as Central Section champs the next year, yet in the city-wide meets Tech was still dominant.¹⁷

DuSable was competing regularly against predominantly white schools at this time, but there were no published reports of hostility or resistance from those schools as in earlier years. Most of the DuSable swimmers I interviewed did not see any conflict or sense any animosity. Commented former DuSable star Eddie Kirk, "We knew them and they got to know us pretty well. It was just like a group of fellows getting together and swimming. That's one of the things I feel real comfortable with, because whenever I went during the summer, the *Chicago Tribune* meet, the *Herald American* Meet, and a couple of AAU meets, it seemed as though I was welcomed wherever I went." Star breaststroker Donald Clark recalled, "I can honestly say that with regard to the guys we competed against, we never had any racial incidents that I recall. In fact, back then I received a lot of compliments from my competitors. I was spurred on by a lot of fellows on the white teams."¹⁸

Bill Mackie is fondly remembered by the swimmers of this period as an excellent coach, and they gave a number of reasons. Related Kirk, "He had high expectations that he wanted you to meet and he made sure you did the work to achieve those goals" Diver Leon Guice added, "Coach Mackie taught us a lot of things about swimming that we didn't know coming up, and he was interested in getting us involved in different competitions during the school year." Added breaststroker Clark; "He would explain things to you. Mackie had shown me how to do a radical new turn with a flip over. This was questioned at a meet, but he got them to accept the maneuver. I thought he was a heck of a coach."¹⁹

The success in swimming that DuSable was experiencing in these years was not only due to the training regimen imposed by the coach. The swimmers he had were highly dedicated to swimming and augmented their in-school training outside the school. Team captain Eddie Kirk worked as a lifeguard at the Wabash YMCA several evenings each week. Said he, "There was seven of us, and I was bringing the fellows in at least two or three times a week, practicing in the pool, and that's what helped us along a little bit, because we were like doing double practice." Kirk also served as unofficial assistant coach and worked with the swimmers on their strokes and training. Diver Lloyd Outton who succeeded Kirk as captain proudly recalled taking the team to the YMCA on Christmas vacation and training every day during the break.²⁰

Donald Clark did not participate in the group outside practices, but got a lot of training on his own at Washington Park. Two of the lifeguards there were his cousins, Waymon Ward and Wesley Ward (the latter DuSable's top swimmer in 1941), who took interest in developing their young cousin. Said Clark, "When I went to go swimming at Washington Park, they made me practice going up and down that pool. That's how I built up speed."²¹

Diver Leon Guice first learned to swim in the Washington Park pool, and in his early teens while working as a life guard there was introduced to diving. He saw one-time national AAU diving champion Dorothy Ziegler training for an AAU competition at the pool. Zeigler was also on the same Catholic Youth Organization (CYO) team as Eddie Kirk, Lloyd Outten, and other DuSable swimmers. Said Guice, "Dorothy Ziegler was a great influence on me in diving. She would come to the pool and work out and I would watch her. After she finished working out, I would get on the board and try to imitate what she had done. After the competition she would come back on her own and regularly coach me on the various aspects of diving techniques." Guice passed on what he learned from Ziegler to fellow diver Lloyd Outten. The two would do pairs diving exhibitions at the Washington Park pool, where in after hours they would practice their dives. The two soon became great point producers for DuSable teams in the next couple of years.²²

The DuSable swimmers were going beyond most of their competitors at rival schools by in putting considerable training outside the school. These extra practices not only helped the team become better swimmers, but undoubtedly helped to bond the team together. "We worked together as a whole and did things together," related Kirk, "like at the YMCA, and continued to do that for the next two or three years. We never had much money and we would have to walk each other home in the dead of winter after the practice sessions. And as time went on the team got stronger and stronger." The DuSable Sea Horses were now ready for the great showdown against the powerhouse Lane Tech team in December 1949.²³

In the 20-yard Public League meet in December 1949, DuSable had its best ever opportunity to overtake the Lane Tech team. DuSable was loaded. The *Chicago Defender*, whose sports writer Chuck Davis was following the team, understood that DuSable had a genuine chance of ending Lane Tech's 14-year string of 20-yard titles.

The day before the finals he ballyhooed DuSable's chances with a sizable story and a large headline, "DuSable Girds to Upset Lane in Tank Meet." Lane Tech qualified seven individuals and one relay team for the finals, compared to DuSable's five individuals and two relay teams.²⁴

Thus, the two teams were evenly matched for the finals—and clearly DuSable was posed for an incredible upset—but the mainstream papers did not take notice. The primary narrative of the preliminaries was that Lane Tech was favored to continue its string of titles. The *Chicago Sun-Times* and the *Chicago Tribune* both listed the number of qualifiers of each team, yet the write-ups automatically assumed Lane Tech as the favorite. Nothing was mentioned about how DuSable just might have the horses this time to beat Lane Tech. But that was not the story in the mainstream papers.²⁵

Lane won the meet, but it was the closest outcome in a couple of decades, with Lane Tech edging DuSable by just five points, 46 to 41. Now belatedly the theme of the mainstream dailies was that DuSable had been a genuine threat to take the title from Lane. Said the *Herald-American*, "DuSable put a scare in the Lane seniors." Said the *Chicago Daily News*, "[The Lane Tech] squad was hard pressed by DuSable to win their title." The *Chicago Defender* followed the next week with a story lamenting the loss, and the bad breaks in the meet, and the disparity in sizes of the schools.²⁶

DuSable's results in the 25-yard meet in the spring of 1950 were not too shabby either, with the school taking second with 33 points to Lane Tech's 45 points. Eddie Kirk that year took home the only medal the school ever won in the state meet, winning the individual medley in the annual February meet. He beat out the state record holder with a time of 1:42.7. The 1949-50 school year, thus, represented the high watermark of DuSable's achievement in swimming, so to speak.²⁷

Now we're going to get into the question of race. There was no commentary in the mainstream dailies on the fact that DuSable had an all-black team that nearly beat the mighty all-white Lane Tech team. The *Chicago Defender* only briefly touched on it, when Chuck Davis offered some commentary in his column. He said:

One of the sports most neglected by Negro high school boys—and collegians too, for that matter, is swimming. Tennessee State, W. Virginia State, and Howard to mention a few, have facilities for a top flight aquatic program, but for some reason the sport has not clicked.

Davis continued his commentary by crediting the success of DuSable's team to the 10-mile marathon that Coach Mackie had been conducting during his tenure, and attributed the traditional lack of swimming success by other black schools to lack of interest and lack of tough training.²⁸ Davis overlooked that the school was producing top divers at this time as well. Leon Guice won the city's diving championship in the spring 1949 meet and took second in the fall 1949 meet. In the spring and fall meets of 1950, Lloyd Outten copped second place both times.²⁹

With the 1950-51 school year, DuSable again had a successful season. The school took the Central Section for the fourth consecutive year, and managed to take second in the annual 20-yard meet, but its 14 points hardly challenged Lane Tech's 42 points. A bit more glory was rendered to DuSable with the publication of the amateur swimming guide in early 1951. Eddie Kirk was named to the 1950 All-American interscholastic team. At that time, the *Chicago Defender* noted that the school's dual meet record was 108 victories to only 11 defeats. The spring 25-yard meet saw DuSable drop to fourth place. The program was in decline.³⁰

Dusable Program in Decline

Despite all the success it enjoyed, DuSable faced much resistance by many of its students to swimming. I talked to a former student of Mackie, James Brown, who while not on the swim team took a swim class under Mackie in the early 1950s. Brown already knew how to swim, which he had learned at park district pools, but he noted that many of his fellow classmates did not, and thus resisted the swim instruction. Said he:

“Coach Mackie would make them get into the water, but they really didn’t want to. You could tell the ones who didn’t want to swim. They stayed in the shallow water all the time. The ones who didn’t want to swim had to go to ROTC!”³¹

Brown laughed on the ROTC comment. Students at Chicago high schools at the time could participate in ROTC in lieu of their physical education classes. Kirk noticed the fear of many African Americans of water, relating:

I guess some parents had some bad experience in the water or something, and what happened they begin to try to protect their kids. They say, “Don’t go near the water! Stay away from the water!” This is from the South all the way up North. That’s one reason blacks—it is an old proverb or whatever—but they just created a fear of water.³²

On the other hand Donald Clark noted, “I don’t believe the assertion that blacks do not like to swim. I grew up in the neighborhood of 49th and Prairie, which was about four blocks from DuSable High School. I had a lot of friends, and every one of them could swim, every one of them. They couldn’t compete like at the level that was going on at that time in the high schools. But they could swim adequately.”³³

The 1951-52 season marks the last time DuSable garnered any kind of league-wide achievement in swimming, when it took second to Lane Tech in the annual 20-yard meet, earning 17 points to Lane Tech’s 34 points. Thereafter, DuSable High was no longer a factor in the city’s swim meets.³⁴

In 1954, the school basketball team, the Panthers, took second in the state. This began a tradition where not only outsiders saw DuSable as purely a basketball power, but so did the school. Said Floyd “Billy” Ray, “The swimmers were no longer coming out for the team. After DuSable’s basketball team went downstate to play in the championship game in 1954 none of the students wanted to swim, they wanted to play basketball.” Donald Clark sadly noted, “I hate to say it, but Coach Mackie just did not have the guys who were willing to put in the work, and maybe the coach was tired of staying on their rear ends.”³⁵

By the 1960s, DuSable was fielding swim teams only intermittently, and 1972 marks the last year that DuSable sponsored a team. With no swim team, the school today sadly reflects the stereotype that African Americans are not interested in swimming and probably are not good at it either.³⁶

Of all the DuSable swimmers I interviewed, Eddie Kirk had the best post-high school swimming career and the only one that competed in college. He went on to Tennessee State on a swim scholarship. He later went into the Army where he qualified to be one of four from the Army to be on the Armed Forces Team that competed internationally at Namur, Belgium. He won a medal there. He returned to Chicago and worked two jobs at the Post Office and the Park District, the latter where he worked until he retired in 1992, and where he coached many swimmers and water polo players. Moving to Florida in retirement, Kirk coached at Brandon Swim and Tennis Club with Peter Banks, and for high schools, other clubs, and the YMCA.³⁷

Summary

The summary of this paper is unfolded by its ironies. During the years of DuSable's tremendous success in the Chicago Public School League program, it was only a story in the *Chicago Defender*. The *Defender* recognition was typical of the day, in which African American publications were dedicated to telling their readers the achievements and exploits of the race. The Chicago mainstream papers did not seem to notice the story, and seemingly took it for granted that DuSable could achieve in swimming as much as any other school. The school in the eyes of the public then was not disproving the popular prejudices of the day regarding African American and swimming.

Another irony is in this very presentation in making DuSable High's achievement a "remarkable story" (as in the title), thus appearing to contain the racially insensitive assumption that it is remarkable that these African-Americans can swim so competitively? But what this story indicates is that the DuSable swimmers succeeded not only because they had a good coach but because they worked harder than opposing teams, practicing more and learning more in off-school hours. Another irony is that this DuSable narrative exists in 2012 but not back in the 1940s, precisely because of what has happened in the last few decades in the black community, where African Americans appear to show less interest in swimming than in the past.

Lastly, the story of the DuSable swim program should be understood in the context of sport history, which in its narratives on race has been inordinately and long devoted to the strictly empirical "recovery" of the missing history of African American achievement. The DuSable swim program and the great athletes it produced in the late 1940s and early 1950s, should now be deemed "recovered," thus constituting an important legacy of African American achievement in swimming history that we should forever remember and recognize.³⁸

References

1. Kevin Dawson, "Enslaved Swimmers and Divers in the Atlantic World," *The Journal of American History* 92, no. 4 (March 2006): 1327-55.
2. Steve Springer, "The 'Nightline' that Rocked Baseball," Bob Baker's Newsthinking, 6 April 2006 [http://www.newsthinking.com/print_story.cfm?SID=146], accessed 30 August 2006.
3. Martin Kane, "An Assessment of 'Black Is Best,'" *Sports Illustrated*, 18 January 1971, 79-80; R. I. Allen and David L. Nickel, "The Negro and Learning to Swim: The Buoyancy Problem Related to Reported Biological Differences," *The Journal of Negro Education* 38, no. 4 (Autumn 1969): 404-411; John W. McClure, "Two Views of Black and White Swimmers," *Integrated Education: A Report on Race and Schools* 57 (May-June 1972): 40-43; Michael Cunningham Jr., "Blacks in Competitive Swimming," *Swimming Technique* 9 (1973): 107-08; Patrick B. Miller, "The Anatomy of Scientific Racism: Racist Responses to Black Athletic Achievement," *Journal of Sport History* 25, no. 1 (Spring 1998): 119-51; "Fifty-eight Percent of Black Children Can't Swim: Disparity Dates Back to Segregated Pools and 'Buoyancy Myth,'" *Westside Gazette*, 15 May 2008.
4. Kane, p. 80; Phillip M. Hoose, "Buoyancy: Why Few Blacks Swim in the Olympics," *Necessities* (New York: Random House, 1989): 70-89; E. B. Henderson, "Negro Swimmers" [letter to the editor], *Washington Post*, 5 July 1949.
5. "NAACP Fights D.C. Bias in Recreation," *Chicago Defender* (national edition), 25 May 1946; "Blast St. Louis Mayor for Rescinding Pool Order to Quiet White Rioters," *Chicago Defender* (national edition), 2 July 1949; "Police to Enforce Jim Crow Ban at D.C. Pools," *Chicago Defender* (national edition), 18 March 1950; "Integration Marches On" [editorial], *Chicago Defender* (national edition), 8 December 1956; "Report Two Killed, Fifty Hurt, in Race Riots," *Chicago Tribune*, 28 July 1919; Allan H. Spear, *Black Chicago: The Making of a Negro Ghetto 1890-1920* (Chicago: University of Chicago Press, 1967): 214-19.
6. "Water-Related Injuries: Fact Sheet," *National Center for Injury Prevention and Control* [<http://www.cdc.gov/ncipc/factsheets/drown.htm>], accessed 17 August 2006; "More on Black Drownings," Steve Sailer: iSteve.com Blog Archives, 22 April 2006

- [<http://isteve.blogspot.com/2006/04/more-on-black-drownings.html>], accessed 17 August 2006; "More on Blacks and Swimming," Steve Sailer: iSteve.com Blog Archives, 23 April 2006 [<http://isteve.blogspot.com/2006/04/more-on-blacks-and-swimming.html>], accessed 17 August 2006.
7. Hoose; Nancy Greenleese, "Philadelphia Teacher Has been Making Poor Black Kids into Competitive Swimmers for 35 Years," *Voice of America* [<http://www.voanews/English/archive/>], accessed 25 September 2007.
 8. "Armstrong High Swimmers Win Conference Meet," *The Afro-American*, 11 May 1935; "Hampton to Have Its First Swim Team," *Chicago Defender* [national edition], 26 February 1944; "Howard Places Third in Swimming Meet," *Washington Post*, 29 February 1948; "Tiger Sharks Gain Swimming Title by Beating Three Top Contenders," *Chicago Defender* [national edition], 24 March 1951.
 9. "DuSable Swimmers, In 23 Dual Meets, Unbeaten," *Chicago Defender*, 17 February 1940; "Lettermen Hold 52d De La Salle Banquet Today," *Chicago Tribune*, 20 November 1947.
 10. Linda Klein, "DuSable School Honors Pioneer, Chicago's Founder," *Chicago Tribune*, 16 December 1963; "Lyda Cops 10-Mile DuSable Swim Race," *Chicago Defender* [national edition], 6 December 1941; Telephone interview with Donald Clark, 15 November 2011, Park Forest, Illinois; Telephone interview with Jerome Merritt, 19 December 2011, Chicago.
 11. "Swimming," *Red & Black 1936* (Chicago: DuSable High, 1936): 60.
 12. Edward Jensen, "Lane Tech's Bad Habit is Winning at Swimming," *Chicago Tribune*, 5 May 1949; Ralph Leo, "Former Lane Tech Swimmers Plan Coach Newman Memorial," *Chicago Tribune*, 2 April 1964; *Directory of Public Schools of Chicago 1935-1936* (Chicago: Board of Education City of Chicago, 1935): 51 and 57; *Directory of Public Schools of Chicago 1937-1938* (Chicago: Board of Education City of Chicago, 1938): 45 and 53; *Directory of Public Schools of Chicago 1940-41* (Chicago: Board of Education City of Chicago, 1941): 34 and 43.
 13. "26th Straight Victory for DuSable's Tankmen," *Chicago Defender* [national edition], 23 March 1940; "DuSable Swimmers in Easy Win Over Phillips," *Chicago Defender* [national edition], 4 April 1942; "Sea Horses," *Red & Black* (Chicago: DuSable High, 1940), p. 72; "Splash!" *Red & Black* (Chicago: DuSable High, 1939), p. 64.
 14. "Englewood, Roosevelt Win Swim Titles," *Chicago Tribune*, 23 December 1934; "Englewood Swimmers Win Senior Title," *Chicago Tribune*, 21 April 1935; "Kiefer Leads Roosevelt to Swim Honors," *Chicago Tribune*, 22 December 1935; "Lane Captures Junior, Senior Swim Titles," *Chicago Tribune*, 12 April 1936.
 15. "Bar Du Sable and Phillips Swim Teams," *Chicago Defender* [national edition], 15 November 1941; "Board of Education Bans Lily-White Swim League," *Chicago Defender* [national edition], 22 November 1941.
 16. "DuSable Tankmen Victors; Coach Joins Army Tuesday," *Chicago Defender*, 27 February 1943.
 17. "Swimming: DuSable Sea Horses," *Red & Black 1946* (Chicago: DuSable High, 1946): n.p.; "DuSable Sea Horses," *Red & Black 1947* (Chicago: DuSable High, 1947): n.p.; "Lane Retains Junior, Senior Swim Crowns," *Chicago Tribune*, 22 April 1949.
 18. Telephone interview with Eddie Kirk, 15 October 2011, Florida; Clark interview.
 19. Kirk interview; Clark interview; Telephone interview with Leon Guice, 22 October 2011, Sacramento, California.
 20. Kirk interview; Telephone interview with Lloyd Outton, 21 October 2011, Los Angeles.
 21. Clark interview.
 22. Guise interview.
 23. Kirk interview.
 24. Chuck Davis, "DuSable Girds to Upset Lane in Tank Meet," *Chicago Defender*, 17 December 1949.
 25. "Lane Seniors Set Pace in Swim Trials," *Chicago Sun-Times*, 14 December 1949; "Gora Sets New 220 Freestyle Swim Record," *Chicago Tribune*, 14 December 1949.
 26. "Lane Wins Splash Title," *Chicago Herald-American*, 17 December 1949; "Gora Cracks Mark as Lane Wins Twice," *Chicago Daily News*, 17 December 1949; "Lane Swimmers Retain Crowns; Gora Sets Mark," *Chicago Tribune*, 17 December 1949; "Lane Numbers Beat DuSable in Swim Meet," *Chicago Defender*, 24 December 1949.

27. "Lane Keeps City League Swim Crowns," *Chicago Tribune*, 21 April 1950; Robert Cromie, "New Trier Wins 3d Consecutive Prep Swim Title," *Chicago Tribune*, 26 February 1950.
28. Chuck Davis, "Chuck-a-luck," *Chicago Defender* [national edition], 4 November 1950.
29. "Lane Swimmers Win City League Championships," *Chicago Tribune*, 9 December 1950; "Lane Keeps City League Swim Crowns," *Chicago Tribune*, 21 April 1950.
30. "Swimming Team," *Red & Black 1951* (Chicago: DuSable High, 1951): n.p.; "DuSable Swimmer Named to All-American Squad," *Chicago Defender* [national edition], 22 February 1951; "Lane Wins Both Prep Swim Titles," *Chicago Tribune*, 7 April 1951.
31. Telephone interview with James Brown, 17 September 2006, Chicago, Illinois.
32. Kirk interview.
33. Clark interview.
34. "Lane Retains City League Swim Titles," *Chicago Tribune*, 8 December 1951; Roi Ottley, "Good Example of Coach Helps DuSable Team," *Chicago Tribune*, 4 April 1954;
35. Telephone interview with Floyd "Billy" Ray, 23 October 2011, Chicago; Clark interview.
36. "Our Sea Horses Splash Again!," *Red & Black 1966* (Chicago: DuSable High, 1966): n.p.; "Sea Horses Return," *Red & Black 1972* (Chicago: DuSable High, 1972): n.p.
37. Esther Kirk, email letter, 20 June 2010.
38. John Nauright and David K. Wiggins, D. K. "Race." In Stephen W. Pope and John Nauright, eds. *Routledge Companion to Sports History*. London: Routledge, 2010, pp. 148-161.

The History and Problem of Swimming Education in Japan

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Abstract

Introduction: From the ancient times, people in Japan have entered the water for the reasons of predation, hygiene, physical health, spiritual health, religion and enjoyment. In the feudal ages of Japan, swimming training has been performed as military arts of the samurais. They demonstrated the peculiar style of swimming in the presence of the Shogun. When the times of samurai were over, Jigoro Kano (1860-1938), who was the founder of Judo, insisted on the importance of swimming education, and made it as a compulsory subject in a teacher training school. It is important to know the history and the process of swimming to provide the benefit that swimming originally has. **Method:** This study consists of a document review compared to the official document of the Japanese Government (including the H.Doc., history documents), including the results of the research that the writers performed. **Discussion:** When the sinking accident of the passenger boat “Shiunmaru” occurred in 1955, with 100 of children drowned beside a lifeboat, the Diet and the government made action to spend a budget for the construction of swimming pools at schools (1961). The Tokyo Olympics were held at the same period (1964), and swimming races became popular. The program of swimming at school was prescribed by the Ministry of Education, which aimed to develop the swimming strokes of the crawl and of the breast stroke. This has been revised every ten years (1961, 1971, 1980, 1992, 2002, and 2011). However, vertical movements, like diving into the water, surface dive, and underwater swimming, were not adopted because of shallow depths. Most elementary and junior high schools in Japan now have their own swimming pool. The rates of establishing public school pools in 2008 were 86.7% at elementary school, 73.0% at junior high school, and 64.5% at high school. Japan has succeeded in decreasing the incidence of drowning by the constructing of swimming pools in schools, although there still exists the highest rates of drowning in OECD countries (Matsui, 2009; 2011). According to the “Can You Swim?” project, most Japanese can swim well with crawl and breast stroke, but are not good at staying afloat, backstroke, diving, and underwater swimming (Moran, 2009; Goya, 2011). **Conclusion:** Through the swimming education in Japan, people can only develop some part of swimming abilities in the whole area of swimming, which provide us water safety and the joy of aquatic activities. It is therefore necessary to verify a swimming skill standard, and to rebuild the appropriate swimming curriculum in order to fit the purpose of drowning prevention.

Key words: swimming, history, Japan.

Swimming is one of the sports that Japanese love, and many people enjoy swimming and aquatic activity in the swimming pool and in the open water. Swimming is one of the compulsory subjects in school education in Japan, so that children growing up in Japan must learn how to swim in a swimming pool. The swimming ability of Japanese people is related to what they learn and develop in the schools.

It is important to know the history and the process of swimming education, to reconfirm its purpose and its philosophy. It is necessary to assess the enforcement of the swimming education for these past 60 years, and of the current swimming class, to assess the prospects of swimming education. The purpose of this study is to look back on the history of the swimming education, and to analyze the current situation, in order to evaluate swimming education in Japan.

Method

This article was consisted by a literature review. Particularly, the studied documents were official records of the Japanese Diet, the official course of study by Japanese Ministry of Education concerning to physical education, the official guidebook of swimming instruction, by Japanese Ministry of Education, the official guidebook of the construction and management for the swimming pool by Japanese Ministry of Education, the official report of Japanese Police Agency concerning to drowning accidents, the publication for swimming pool construction, the World Health Organization's mortality database and finally historic documents concerning to swimming training and instruction. In addition, results of the research that the authors performed were included.

Discussion

Historic process

From the ancient times, people in Japan have got into the water for the reasons of predation, hygiene, physical health, spiritual health, religion and enjoyment. The fishery people harvested fish, shellfish and seaweed in the sea and river. The diver people who were specialized to get seafood by one's own physical ability, they were called "AMA" which means "sea man" or "sea woman", and it seems they were very good swimmers. People in Japan also got into the water not only to swim but also to put water on their body to clean, cure, well being purpose (Kuroyanagi, 2010). They are a kind of hydrotherapy or therapy in the water, which we can find similar activities all over the world. Some people got into the water to perform "MISOGI", a purification ceremony, purify oneself with water for a religious purpose.

At the warring states period in Japan, in 15th-17th century, there were piratical groups with battleships. These warriors of pirates usually had stayed aboard on ship, without getting into the water, but sometimes had to swim wearing their armor and helmet.

At the Edo Shogunate period (1603-1867), swimming as a military art developed. Due to the conditions and situations of the rivers, seas, and lakes of the country, various schools of military arts developed their original style of swimming (Furuhashi, 1971; Shirayama, 1975). In accordance with the topographical differences in various parts of the country, they developed these schools of different types of swimming. At the middle of Edo period, when the country was unified and had the peaceful times, swimming of warriors was systematized as a culture of samurai, and became one of the items of demonstration. They showed some typical and unique movement in the water, and some performed calligraphy in the water. Such swimming was known as one of military arts and expressed the culture of the samurai. At the present time, Japanese Swimming Federation (JASF) authorizes 28 schools of traditional style of swimming as "Nihon-eiho" (Japanese style of swimming), and keeps supporting for the preservation of these culture.

In the swimming textbook at that time (Figure 1), we can find instructive drawings showing how to put swimsuit on, how to perform sidestroke, how to perform "Nukite" (front crawl with scissors kick), how to stay afloat, how to dive, how to recover from cramping, how to go through a big wave, how to escape from current or eddy, etc. These skills seem to cover all general ability to live in the water, include drown proofing. This textbook was reissued in 1919 by Suikokai (an association of Japanese traditional style of swimming).

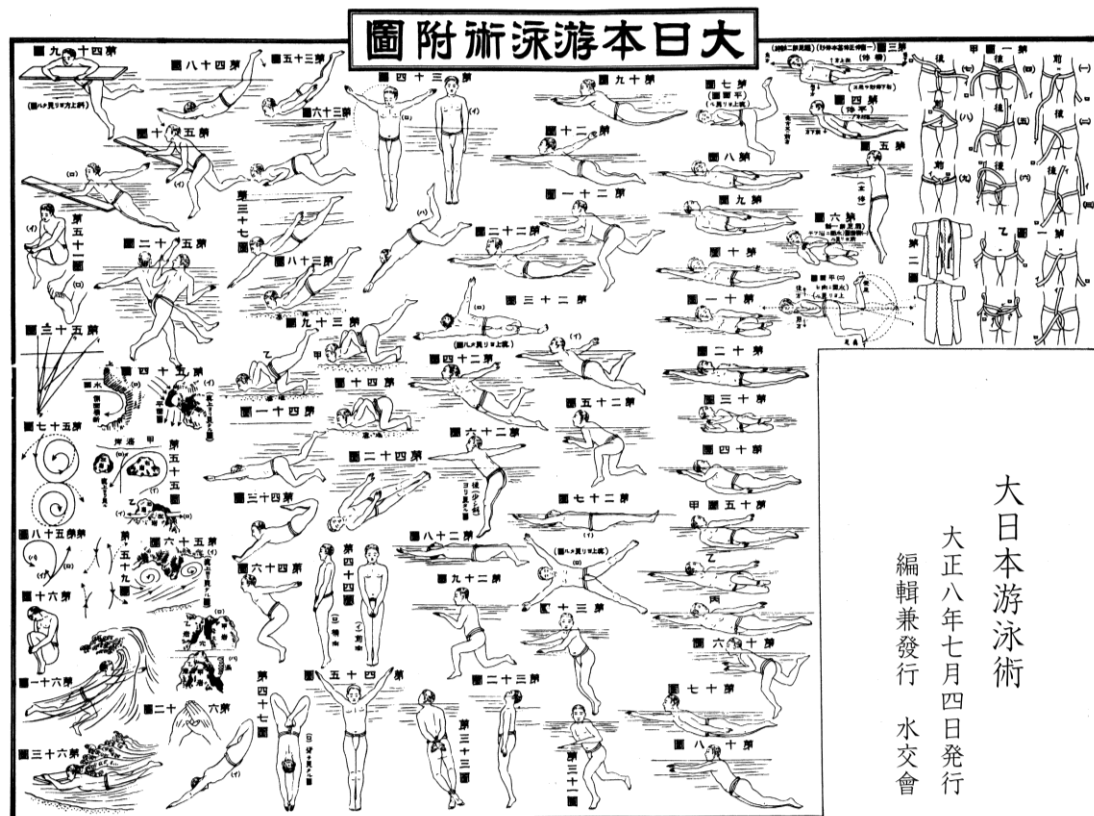


Figure 1: Appended diagram of Japanese swimming method. Note. Taken from Suikokai (1919).

When times of samurai, feudal period in Japan had been over and national seclusion was solved, it was the times freed globally. The traditional Japanese culture had been fused with Europe and American culture and modernized rapidly. Swimming training had become a matter of education at school in historic process.

Swimming in modern education system

Jigoro Kano (1860-1938) is well known as the founder of Judo, the first Japanese martial art to gain widespread international recognition, and the first to become an official Olympic sport. Kano also was the first Asian member of the International Olympic Committee; he was a pioneer of international sports in Japan. But in his professional life, he was an educator, served as director of primary education for the Ministry of Education, and also as president of Tokyo Higher Normal School, in which a lot of excellent teachers were trained. He told that teachers must able to swim, in order to secure their children with their professional responsibility (Sanada, Tsubakimoto, & Takagi, 2007). He insisted on importance of the swimming education and made it with a compulsory subject in a teacher-training curriculum. Now we may call Kano not only a father of Judo, but also a father of sports in Japan, a father of education in Japan, and a father of school swimming.

A trigger to national swimming education

The Siun-maru disaster was a ship collision accident occurred in 1955, killing 168 people (Hagiwara, 2000). The ferry ship named Shiun-maru had sunk completely after colliding

with another ferry, the Uko-maru, in thick fog. The victims included 100 students of elementary and junior high schools during school trips. It was only 6 minute until buried in the sea after colliding. There was no time to pick up a life jacket, nor put on it. Even some people with a life jacket sank with a ship because they were not able to jump off from the deck. When the ship had gone into the sea, many people had stayed on sea surface; it had been impossible to stay afloat without floating device because they had not been able to swim. If they had ability to stay afloat for a few minutes, till the time to have rescue, they may had survived because another collision ship Uko-maru had been still safe as a lifeboat. The next day of this disaster, the details of this cruel accident were reported in the Japanese Diet. Diet members paid attention about that the most adult teachers had been drowned (Yajima, 1955). They examined about appropriate and desirable ability of swimming and water safety, as a teacher who had to protect the life of children (Ogata, 1955).

It had been about 50 years after Jigoro Kano insisted on importance of the swimming education in school. Thus, the Siun-maru disaster could be a trigger to start a series of swimming promotion as a national policy. In addition, this disaster also encouraged the Japanese government to construct the 3 big bridges to connect Japanese Main Island and Shikoku Island including Akashi-kaikyo Bridge, the longest suspension bridge in the world.

National promotion of school swimming

In 1961, the Japanese Government established the law of sports promotion, and released an enforcement order next year. Then they carried a five-year plan for construction of sports facilities including gymnasium, swimming pool, tennis court, football field, baseball stadium, etc. At the first year of five-year plan, the first Olympic games in Asia were held in Tokyo, and competitive sport became much popular.

In school education, swimming had upgraded in 1968, as a major physical exercise in school, by the revision of curriculum guideline by the ministry of education. In 1972, a construction standard of sports institution had been set, and standard number of public swimming pool had prescribed to be 6:100 thousands of residence population. The government also distributed a large amount of subsidy, financial support for cities, public schools and private schools. These series of policies mean huge national projects based on huge budget, executive ability, and the understanding of the nation in acknowledgment for such policy. In another word, Japan had a national energy to promote swimming.

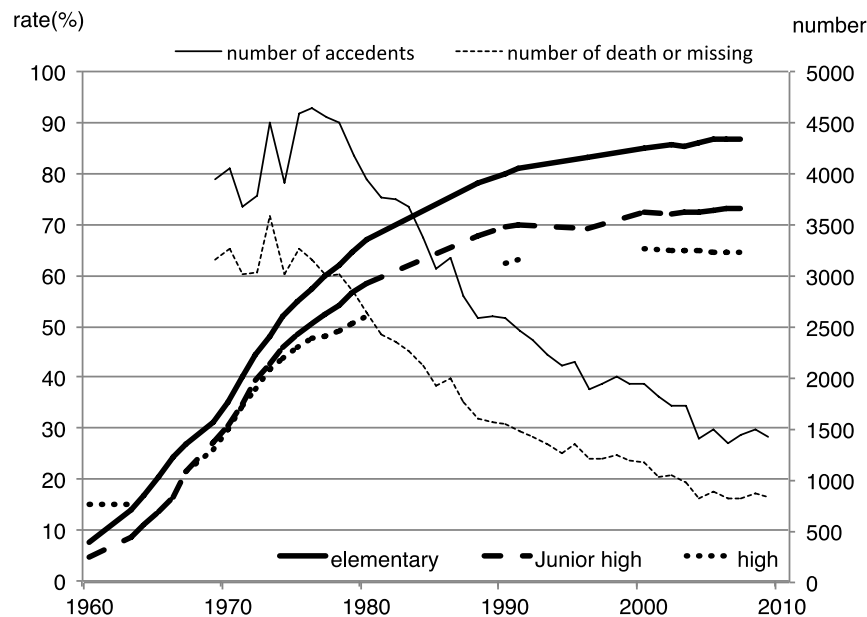
The Ministry of Education, which aimed to develop the skills of the crawl and the breaststroke, prescribed the contents of swimming at school and it has been revised in every ten years (i.e., 1951, 1961, 1971, 1980, 1992, 2002, and 2011). However, vertical movements like diving into the water, surface dive, and underwater swimming were not adopted because of shallow depth of swimming pool.

Swimming pool at school

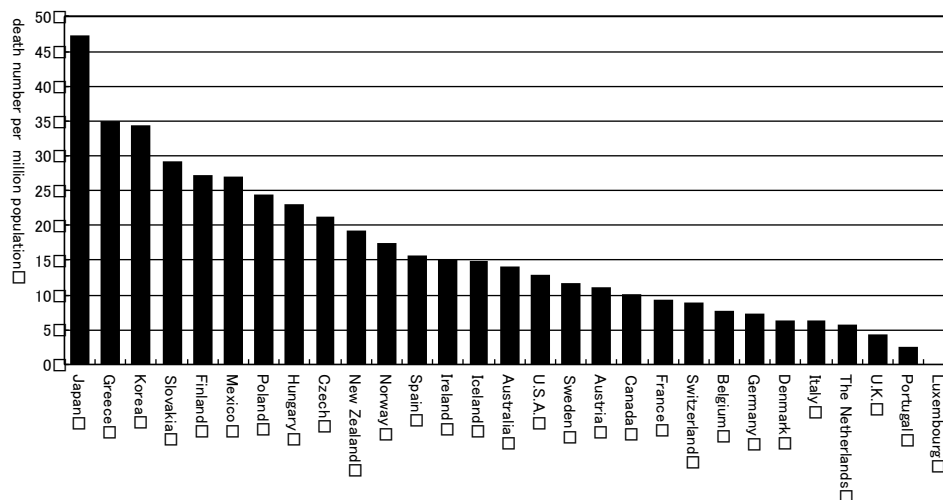
Before 1960s, most schools did not have their own swimming pool. But after the Shiun-maru disaster, by the promotion for construction of sports facilities and spread of swimming education at school by administrative power, rate of public school pool establishment have increased rapidly as shown in Figure 2. Most elementary and junior high schools now have their own swimming pool. Rates in 2008 are 86.7% at elementary school, 73.0% at junior high school, and 64.5% at high school.

At the same time, Figure 2 shows the decrease of drowning accidents reported by the National Police Agency for the same period. It is considered that Japan has succeeded in decreasing drowning by constructing swimming pools in school all over the

country. Although Japan still have the highest rates of drowning in OECD countries at 2004 shown as Figure 3 (Matsui, 2011).



Graph 1: Swimming pool diffusion rate in school and drowning accidents in Japan (Matsui, 2009).



Graph 2: Death rate by drowning in OECD countries in 2004 (Matsui, 2011).

Swimming ability given at school

Figure 4 shows the list of swimming skills dealt with in each school year that Ministry of Education prescribed. Swimming is a required activity in physical education class through Year 1 to Year 8 school years. At Year 1 and Year 2 they learn to fit in the water. At Year 3 and Year 4 they learn the basic and elementary swimming skills. At Year 5 and Year 6 the aim of swimming is to swim long by the front crawl and the breaststroke. At the higher school age backstroke and butterfly will be added, and finally they are demanded to swim a medley and relay. These contents of swimming skills at school

seem to be limited to some competition oriented skills in wide world of swimming and aquatic activities.

According to the “Can You Swim?” project, Japanese can swim well with the crawl and the breaststroke, but are not good at staying afloat, backstroke, dive into, and underwater swim (Moran, 2009; Goya, 2011). It is reasonable that Japanese must have training for the crawl and the breast stroke at school, and it is not required to try treading water, surface dive, and underwater swim at school.

The reason why the Japanese schools do not develop such important skills in swimming is not clear. Before the explosive spread of swimming pools began at 1970s, swimming pool in Japan had enough depth to perform underwater swimming and vertical movement in the water like in foreign countries. But when the government promoted school swimming pool construction, most new pools had shallow depth (0.8-1.1m at elementary school, 0.8-1.4m at junior high). According to the design guidebook of pool construction released by Japan Cement Association at that time (Japan Cement Association, 1952), it is described that swimming pool should be shallow as possible to save building cost and the maintenance cost. For this reason, shallow pools are desirable for both the side to place an order and to receive an order to construct them. It is also desirable to secure the safety not to be drowned for everyone can stand up in the swimming pool. But it is not appropriate as a place of the learning to get abilities for certain swimming security. Thus the abilities given at school are limited by the condition in the design of the swimming pool. And that is one of the major reasons why they train only the styles of race swimming.

School Year	Activity	Skills
*1, *2:	Playing in the water	soak , move, float, open eyes, expirate
*3, *4:	Exercise of float and swimming	various kind of floating, gliding, kicking and stroking with floating device, elementary swimming with breathing
*5, *6	Swimming	swim long by the front crawl continually, swim long by the breast stroke continually
*7, *8, **9	Swimming	front crawl, breast stroke, back stroke, butterfly stroke, plural style of stroke, relay
**10, **11, **12	Swimming	front crawl, breast stroke, back stroke, butterfly stroke, plural style of stroke, relay

Table 1. Swimming skills in the official course of study. Note. *required. **elective.

Average swimming pool in school has shallow depth
(0.8-1.1m at elementary school, 0.8-1.4m at junior high school)
+ horizontal move - vertical move
+ can stand up - easy to give up
Outdoor pools / June-July rainy season / 8 times of class
No achievement standard to complete a swimming class
Many of school teachers are not good at swimming
Less opportunity to improve/retrain how to teach swimming
Recent adults do not recognize value and importance of swimming and the water safety

Table 2. Problem of school swimming in Japan.

Problem to be solved in the Swimming Education

The biggest problem of Japanese swimming education is that most people would have no experience to swim or even stay in the water at the place impossible to stand up.

Beside the limitation of skills developed in shallow pool, there are several problems to be solved. Expecting further development of the future swimming education, we showed those problems in table 2.

Conclusion

Swimming in Japan had developed as military arts of warriors, and became as the culture of the samurais. Swimming is recognized as a matter of education and developed at school. The Japanese government has promoted swimming with an educational intention for these 60 years. The outdoor swimming pools spread in almost every school, but people do not acquire enough ability to secure water safety by the factor of pool facilities and course of study. It is necessary to reexamine a swimming skill standard and assessment for human education, and to rebuild the appropriate swimming curriculum to fit the purpose of the water safety. In swimming education in Japan, people can develop only some parts of swimming abilities in whole area of swimming which provide us water safety and joy of aquatic activities. It is necessary to verify a swimming skill standard, and to rebuild the appropriate swimming curriculum.

References

- Furhashi, H. (Eds.) (1971). *Swimming dictionary*. Tokyo: Kodansha.
- Goya, T., Teramoto, K., Matsui, A., Shimonagata, S., Doi, Y., & Moran, K. (2011). Real and Perceived Swimming Ability, Perceptions of Drowning Risk among Teachers College Students. *Bulletin of Aichi University of Education*, 60, 35-46.
- Hagiwara, M. (2000). *Why did the uko-ferry "Siun-maru" sink?* Tokyo: Seizando-Shoten.
- Japan Cement Association. (1952). Swimming pool. *Concrete Pamphlet*, 21, 9-23.
- Kuroyanagi, A. (2010). *Sea bathing and Japanese*. Tokyo: Chuokoron-Shinsha.
- Matsui, A. (2011). Reconsidering the swimming education from a viewpoint of "water safety" to save our life. *Tainikuka-Kyoiku*, 59(7), 18-21.
- Matsui, A. (2009). Supporting Japanese Swimming by School Education. In *Proceedings of the Japanese Society of Science in Swimming and Water Exercise* (pp. 6-7). Yokohama, Japan: Keio University.
- Ministry of Education (1966). *Guidebook for the swimming pool construction and management*. Tokyo: Kyoiku-Tosyo.
- Ministry of Education, Culture, Sports, Science & Technology (2008). *Instruction for course of study at elementally school (physical education)*. Tokyo: Toyokan.
- Moran, K. (2009). Creating a water safety culture: The New Zealand experience. In *Proceedings of the Japanese Society of Science in Swimming and Water Exercise* (pp. 8-11). Yokohama, Japan: Keio University.
- Ogata, S. (1955, July). Remark record in the House of Councilors Committee on Education. Retrived March 13,2011, from http://kokkai.ndl.go.jp/cgi-bin/KENSAKU/swk_dispdoc.cgi?SESSION=22132&SAVED_RID=4&PAGE=0&POS=0&TOTAL=0&SRV_ID=2&DOC_ID=23480&DPAGE=1&DTOTAL=10&DPOS=1&SORT_DIR=1&SORT_TYPE=0&MODE=1&DMY=21185
- Sanada, H., Tsubakimoto, S., & Takagi, H. (2007). Reconstruction of Sujutsu by Kano Jigoro. *Japan Journal of Physical Education, Health and Sport Science*, 52(3), 315-326.
- Shirayama, G. (Eds.) (1975). *Japanese style of swimming Secret method of 12 schools*. Tokyo: Japan Publication.
- Takahashi, Y. (1919). *Japanese Swimming Method*. Tokyo: Suikokai.
- Yajima, M. (1955). Remark record in the House of Councilors Committee on Education. *The Diet Record*. 22-San-Bun-4, at 14 May 1955. 1-8. Retrieved on 13 March from http://kokkai.ndl.go.jp/cgi-bin/KENSAKU/swk_dispdoc.cgi?SESSION=22132&SAVED_RID=6&PAGE=0&POS=0&TOTAL=0&SRV_ID=2&DOC_ID=22323&DPAGE=1&DTOTAL=1&DPOS=1&SORT_DIR=1&SORT_TYPE=0&MODE=1&DMY=28263

Hawaii's Contribution to the Swimming World

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Introduction: This article aims to discuss how in spite of the isolation of the Hawaiian islands which was compounded by political and social changes, as well as racial inequality, the local island athletes were able to overcome these obstacles and achieve a rich history in competitive swimming. **Method:** The information that was used was obtained by researching historical records, reviewing the literature, and interviewing fellow athletes. **Results:** It was interesting to learn the creative methods used to overcome the lack of available facilities. For example, although there were no standard swimming pools in Hawaii before the turn of the century, the ocean provided various aquatic sports such as swimming, surfing, and outrigger canoeing. Although Hawaii was undergoing numerous transformations, various dignitaries came to the islands including the Duke of Edinburgh. It was during this time, on August 24, 1890, that Duke Paoa Kahanamoku was born. His proud parents named their son after the Duke of Edinburgh. **Discussion:** Hawaii's Olympic swimming legacy began with the remarkable achievements of Duke Paoa Kahanamoku. Duke's exceptional water ability captured not only the attention of the world, it motivated future local swimmers to hone their swimming skills and compete on the national stage. These early swimming champions had no swimming pools, no swimming programs, no goggles, and no water resistant swimsuits. It wasn't until August 12, 1911, that Hawaii held its first major AAU sanctioned swimming championship. It was then that Duke Kahanamoku demolished the American record by swimming the 50 and 100 yard freestyle. Mainland officials who had come to the Islands to observe and record this event questioned the reliability of Duke's swimming records. The course was measured not once, but three times by five qualified official course timers. This 1911 event was the beginning of Hawaii's swimming dynasty. For the next half century Hawaii's swimmers would compete, set World Records, and participate in numerous Olympiads (Table 1). **Summary:** Overall it seems that Hawaii, has served as a place that not only created great aquatics athletes but that also inspired others to continue their legacy by undertaking aquatic activities for competitive and recreational purposes.

Olympic Games	Olympian	Sport-Stroke	Medal
1912	Duke Paoa Kahanamoku	100m Freestyle	Gold
		800m Freestyle Relay	Silver
1920	William Harris	100m Freestyle	Bronze
1920	Duke Paoa Kahanamoku	100m Freestyle	Gold
		800m freestyle Relay	Gold
1920	Warren Kealoha	100m Backstroke	Gold
1920	Aileen Ruggin	Springboard Diving	Gold

Table 1: Table includes the Olympic Games, the Olympian and the achievement of the race in specific aquatic event.

References

- Cisco, D. (1999). *Hawaii Sports, History, Facts, & Statistics*. Honolulu, Hawaii: University of Hawaii Press.
- Hall, S.K. (2004). *Duke, A Great Hawaiian*. Honolulu, Hawaii: Bess Press.

A History of Olympic Pins and Badges and How Collecting Changed in Life

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Introduction: This presentation aims to focus on the Summer and Winter Games that are especially noteworthy in their relation to Olympic pins and badges. In addition, I will try to vividly illustrate how being a passionate and veteran Olympic Memorabilia collector played an instrumental role in my being chosen by Coca-Cola to be a Torchbearer in the Salt Lake 2002 Olympic Torch Relay. **Method:** I have accumulated a considerably high number of pins and badges that will be presented in the form of power point and a DVD. **Discussion:** From my collection, the following Olympic Games are noteworthy to be presented. (1) *Athens 1896 (the First Modern Olympic Games)*: Five round cardboard disks were produced for Organizing Committee members, Judges and Athletes, and were imprinted with the appropriate title of the wearer -- in Greek, of course. These were really the first Olympic pins with which most of us are now familiar, but they were certainly primitive by today's standards. (2) *St. Louis 1904: (part of the Louisiana Purchase Exposition aka the St. Louis World's Fair)*: Badges were again issued to Olympic Games participants which were really participants' medals suspended from metal hangers and long ribbons. Today, these badges bring in the tens of thousands of dollars at auction and are among the most sought-after items in the Olympic collecting universe. (3) *London 1908*: Large elaborate badges with scalloped edges (resembling jewelry-like broaches) were produced for participants. These were also the first Games at which a National Olympic Committee or NOC pin appeared. It was made for the Swedish delegation and resembled the national flag. (4) *Stockholm 1912*: Souvenir pins made their debut and were depicted in full-page ads in many of the official programs. This marked the beginning of the commercialism which is now so closely associated with the Olympic Games. (5) *Paris 1924*: The first Olympic Village was created and this is where it is believed that the first real pin trading took place. (6) *Berlin 1936*: More than a million pins were sold to the public in the years leading up to these Games. Not only was this the first time that such sales occurred prior to the actual year of the Games, but it was also the first time that pins were advertised in the newspaper and sold through the mail. (7) *Helsinki 1952*: There were 218 different variations of participant's badges with ribbons for the Summer Games -- an unprecedented number. (8) *Melbourne/Stockholm 1956*: For the first time, the Summer Games were hosted by two different cities in two different countries. Melbourne was the venue for all but the Equestrian events which went to Stockholm. The pins and badges made for the latter are more difficult to find and highly-prized by both Olympic and Equestrian collectors. (9) *Squaw Valley/Rome 1960*: The Winter Games saw the first sponsor pin by Sylvania Electric in the shape of a microphone while the Summer Games introduced the use of color coding to identify the sport that each general category of participant's badge represented. (10) *Mexico City 1968*: Plastic ribbons were used on the participant's badges for the first time. (11) *Montreal 1976*: Pin trading among spectators started to become popular. (12) *Lake Placid 1980/Los Angeles 1984*: Pin trading exploded and with it came the recognition by Games organizers and sponsors that this was a phenomenon that was here to stay. (13) *Calgary 1988*: The Coca-Cola Company sponsored the first Official Pin-Trading Center. The iconic soft drink manufacturer has continued to provide this venue at every Games since. **Summary:** Collecting has provided me with not just the opportunity to travel to many interesting and beautiful places, but to meet some wonderful people from other countries and cultures, and in so doing, it has greatly enriched my life.

A Race of Swimmers: A Race of Swimmers: Native American Swimming Skills Before and after the Arrival of the Europeans

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Abstract

The importance of swimming in Native American cultures cannot be over-estimated, although little has been written on the subject. Perhaps no people on earth took more pains to learn to swim, nor were any better at it. There certainly were no people whose avocations of life more often called for its use; as many of the tribes spent their lives on the shores and in the waters of our beaches, lakes, rivers and swamps. Perhaps without realizing it, but certainly without recognizing it, the native aquatic culture is now modern American culture as we teach our children to swim at the earliest age and flock to beaches, pools and rivers to enjoy swimming as Native Americans once did. This incredible, previously untold story is intended to educate, inform and motive all Americans, but especially Native Americans to embrace the great aquatic traditions of our native people for better fitness and health, both physical and mental.

Key words: Swimming, history.

The importance of swimming in Native American culture has not received the attention due it, even though its impact on Western history and modern American culture cannot be overestimated. Our knowledge of swimming in America begins in 1492, a time when most Europeans, including many sailors and all women, did not know how to swim. In contrast, the early explorers and discoverers of the Americas found a native population that spent their lives on the shores of our hemisphere's vast seas, rivers and lakes, paddling about in their canoes, which were liable to continual accidents and which made them dependent upon swimming for the preservation of life. For this reason, children of both sexes were taught by their parents to swim as soon as they were old enough to walk. Native swimmers dove to great depths for oysters and scallops, swam to hunt for fish and water fowl, fearlessly jumped from their canoes onto the backs of whales and swam to attack or escape from their enemies. But they also swam for fun and understood the benefits of hydrotherapy as a cure all for injuries and illness.

It was the discovery of the new world and contact with the indigenous populations of America that reignited an interest in swimming in Europe. In ancient times, swimming had been as essential to the Europeans as it was to the Native Americans - for all the same reasons. It was so important to the Romans that emperors built immense public swimming and bathing complexes that were the greatest achievements of the architects and engineers of their day. At the height of Roman power, in the second Century A.D., there were nearly 1,000 bathing establishments in the city of Rome catering to a population of less than a million people. But it was the excesses of the Roman Baths that the Christian Church blamed for the collapse of the empire. It was at the baths, where men and women bathed and swam together in the nude and where, in the eyes of the Church, they engaged in licentious, degenerate and immoral behavior. For Christians, nudity, sex, bathing and swimming were lumped together as one sinful activity. As a result, the art of swimming was lost to the western world for nearly a thousand years.

Columbus and the soldiers of fortune who followed him, saw the "Indians" as expendable slaves whose swimming skills were exploited to harvest fabulous wealth from the pearls beds of Venezuela and to salvage merchandise and treasure from shipwrecks.

When the enslaved Indian watermen of the Caribbean tribes began to disappear from disease or genocide, the Europeans replaced them with African slaves, who had similar aquatic skills, but who were immune from small pox, cholera and other diseases. As the Europeans moved into North America it was the native knowledge of fishing, whaling and aquatic transportation routes for commerce that brought wealth from the water. As this native population disappeared from disease, genocide or relocation to arid reservations, where their aquatic traditions and heritage has been lost, the colonists and their African slaves adopted, over time, the distinctly native aquatic lifestyle and turned the campsites, fishing villages, bathing beaches and sacred healing springs of the Indians into the cities, business enterprises, resorts, spas and aquatic playgrounds of America.

First Contact

It was on October 12, 1492 when Columbus first stepped onto land in the Bahamas. At first, the indigenous Tainos kept their distance, but eventually they came out of hiding to meet the Admiral and his men. When the Spaniards returned to their ships, Columbus noted in his journal that the natives followed after them by swimming and in great canoes, “some of them large enough to contain forty or forty-five men, others of different sizes down to those fitted to hold but a single person...If they happen to upset, they all jump into the sea, and swim till they have righted their canoe and emptied it with the calabashes they carry with them.”¹

On arriving in Cuba, Columbus wrote that great numbers of Indians, more than a thousand, visited his ships in canoes. “Besides these there came above five hundred, swimming for want of canoes, the ships being anchored near a league² from shore.”³ That the natives of the Caribbean of both sexes were “as accustomed to swim as to walk is not astonishing,” wrote Peter Martyr d’Anghera, the “Chronicler of Discovery” appointed by the Holy Father, in Rome, “when we consider the women’s customs in childbirth.”

*When a woman feels the hour of her delivery to be near, she goes into a neighbouring wood and seizing the branches of a tree with both hands, gives birth without the aid of a midwife. Taking the new-born child she carries it to the neighbouring stream, where she washes both herself and the child, rubbing it and dipping it into the water without its crying or making any noise; after which she takes it home and nourishes it. During the following days she frequently washes herself and the child, and these habits prevail everywhere. It is also alleged that in other countries the women go to a stream when about to be delivered and allow the new-born babes to fall into the stream.*⁴

One of Columbus’ men, Michael de Cuneo, wrote of the experience of the Spaniards on crossing rivers in their quest for gold, in Hispaniola, during the first voyage:

*“Those who did not know how to swim had two Indians who carried them swimming; the same out of friendship and for a few trifles that we gave them, carried across on the top of their heads our cloths, arms and everything else there was to be carried.”*⁵

On the returning to Spain, in January of 1493, Columbus noted in his log that his eight Indian captives made the best of their situation, while in a calm and when the ship was making no progress, by fishing or swimming.⁶

It was on Columbus’s second voyage that the Spanish first came in contact with the hostile Carib tribe on the island of Guadeloupe. According to contemporary accounts told to Peter Martyr D’Anghera, the Caribs were cunning man-hunters who thought of nothing else than this occupation. If an encounter took place on the water, Carib “men and women swim with as great a facility as though they lived in that element and found

their sustenance under the water.” In one encounter, after the Spanish rammed and sank a canoe, the natives threw themselves into the water and “*continued while swimming to shoot their arrows with the same rapidity.*”⁷

In Puerto Rico, Columbus took several women prisoner, but at night they slipped down from the sides of the ship and made their escape by swimming “*considerably more than half a league.*”⁸

It was on the third voyage, while exploring the coast of Venezuela, that Columbus found a commercial use for the swimming skills of the natives. It was here he noticed a woman wearing a pearl necklace. Pearls were scarce and of immense value in Europe at the time, more valuable even than gold. Columbus learned that the natives fished for pearl oysters on the island of Cubagua and that skillful divers were trained from infancy for this purpose (figure 1).⁹

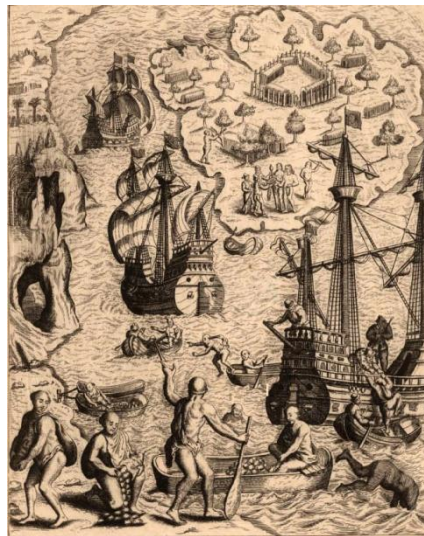


Figure 1: Indian Pearl Divers Venezuelan Coast, circa. 1512.

Prior to the discovery of pearls, the price for Indian slaves in the gold mines of Hispaniola was \$4 a head, but skilled swimmers reached a price above \$140 on the Pearl Coast. The divers lived a horrid and short existence as they were forced to dive without rest and ever deeper.¹⁰ When the first epidemic of small pox and cholera arrived in 1518, much of the native population in the Caribbean basin was wiped out. The Spanish and Dutch replaced the native divers with swimmers from Africa, who had similar swimming skills, but who were immune to the diseases that had ravaged the Indians (figure 2).



Figure 2: African Slaves harvesting pearls off the coast of Venezuela, circa 1520

When Ponce de Leon was the governor of Puerto Rico (1508-11), he came across the wife of a village chief, *“bathing her child and teaching it to swim, for it was the custom of these people to make their children expert in this art at the earliest possible age.”*¹¹ Later, when he became the first Spaniard to set foot on Florida, in 1513, he observed during a battle, that *“some of the natives were so closely pressed they were compelled to take to the water where they swam like ducks until either picked up by canoes or they reached the shores of the lake.”*¹²

In Colombia, Vasco Nunez de Balboa observed in 1510, that the natives, *“both men and women were greatly addicted to swimming; and to be continually in the water was one of their favorite pleasures.”*¹³

In Mexico, as Cortez approached the capital of the Aztecs, his men observed that the Indians of both sexes *“were as much at home in the water as on land. Whenever the humour takes them to collect gold, they dive into the river and bring up handfuls of sand, which they sift from one another, taking out the gold.”*¹⁴ When the Spanish horsemen attacked the Aztecs on the causeways of Tenochtitlan, *“the barbarians (Indians) threw themselves quickly into the water, -- for like crocodiles or seals, they swim as easily as they walk on land, -- after which they crept along the causeway, emerged from the water, and renewed the fight.”*¹⁵

From one of the Caribbean islands, Spanish soldiers of Fortune described a bird-hunting technique that Petyr Martyr D’Angherea thought was “quite original.”

*The natives threw a large quantity of gourds into ponds. These gourds, floating about on the water, inspire the birds with confidence; the hunter then covered his head with a sort of cask made of a gourd, one in which there are little holes for his eyes, like a mask. He then waded “into the water up to his chin, for from their infancy they are all accustomed to swim and do not fear to remain a long time in the water.” By imitating with his head the movements of the floating gourd and following the little waves produced by the wind, he gradually approaches the birds. Stretching out his right hand he seizes a bird by the foot, and without being seen, quickly jerks it under the water and thrusts it into a bag he carries.*¹⁶

In 1524, Giovanni da Verranzanno left Madeira, Spain for the new world. After forty-nine days he sighted land, probably the coast of North Carolina, but rough seas and no harbors made landing impossible. As the crew needed fresh water, he sent a small boat ashore, but the surf was too rough to land. As Indians stood at the waters edge, a brave sailor attempted to swim ashore with presents in hand. Probably caught in a riptide, he nearly drowned but was rescued by the Indians (figure 3).¹⁷



Figure 3: Verranzanno's sailor rescued: 1524. Note. Unknown tribe – possibly Cherokee. Original engraving unknown.

In one of the narratives of Hernando de Soto's explorations through the American mainland, his secretary described a battle in which the Spanish chased the Indians into two very large ponds:

"wherein they swam about; and, being surrounded by the Christians, they were shot at with crossbow and arquebuse, although to no purpose, because of the long distance they were off. At night, one of the lakes was ordered to be guarded, the people not being sufficient to encircle both. The Indians, in attempting to escape in the dark, would come swimming noiselessly to the shore, with a leaf of waterlily on the head, that they might pass unobserved."

But their attempts to escape proved useless. The next day, all but twelve of the hunted "driven by extreme dullness of the water; and one after another, as cold overpowered," surrendered. The others *"of more distinction and valiant than the rest, preferred to die rather than yield: then the Indians of Paracoxi, who were going about unshackled, went in after them, swimming, and pulled them out by the hair. They were all put in chains, and, on the day following, were divided among the Christians for their service."*¹⁸

In the 1562, French Huguenots landed near present day St. Augustine, Florida, and established the first European colony in North America. The French arrival was met by friendly Timucas and there are many images and stories that survive regarding the swimming skills of this tribe which inhabited much of the Southeast United States. An engraving by De Bry shows Timucas swimming out to greet the Europeans in their boats, women swimming with their children and later, as allies of the Spanish, swimming across the St. John's River, near present day Jacksonville to attack the French Fort Caroline (figure 4, 5).¹⁹

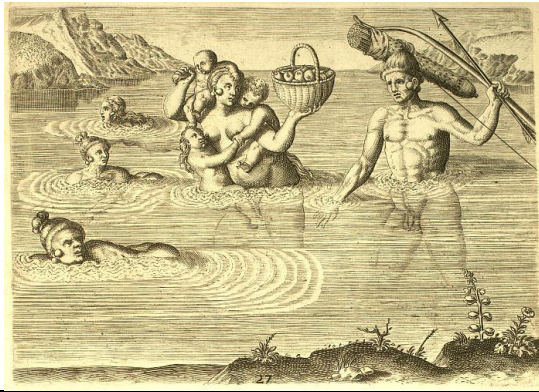


Figure 4: LeMoyne illustration of Native family swimming across the St. John's River, circa 1560.



Figure 5: Creek and Cherokee's swimming to attack Ft. Caroline circa. 1560. Note. De Bry engraving from LeMoyne water color.

Letters from the leader of the Spanish expedition that drove out the French heretics, Pedro Menendez de Aviles, describe the Timucas in the following terms:

*The women were tall and painted like the men, but much whiter. Their hair was allowed to grow down to the hips, about which it fell freely. They could climb the trees with agility, and were so robust they could swim across the broad and shallow rivers bearing their children in one arm.*²⁰

*The soldiers found the Timuquanans a difficult foe to contend with, and more than a match for their cumbrous arms, owing to their great agility and the rapidity of their movements... When the Spaniards pursued them they ran to the streams and marshes, threw themselves into the water, and, being naked and swimming like fish, crossed to the opposite shore, bearing their bows and arrows aloft in one hand to keep them dry; there they would stand shouting and mocking at the Spaniards, and when the latter withdrew, they swam back, dogging their steps and shooting at them from the underbrush.*²¹

Another incident in Florida, recorded by the Spanish historian, Joseph Acosta, tells of a cayman seizing a young child whereupon his father cast himself into water, "with a knife in his hand, and as they are excellent swimmers and divers, and the Caymant swimmeth alwayes on the toppe of the water, hee hurt him in the belly," in the attempt to rescue the child.²²

Acosta's description of the Timucan method for hunting whales, with an accompanying de Bry engraving provides another example of the bravery of Native American swimmers (figure 6):

"But the combat which the Indians have with Whales is yet more admirable, wherein appears the power and greatnesse of the Creator, to give so base a Nation (as be the Indians) the industrie and courage to incounter the most fierce and deformed beast in the world, and not onely to fight with him, but also to vanquish him, and not to triumph over him. Considering this, I have often remembred that place of the Psalmes, speaking of the Whale, Draco iste quern formasti ad illudendum eum: What greater mockerie can there be, then to see an Indian Whale killed, leade a Whale as bigge as a Mountaine, vanquished with a cord: The manner the Indians of Florida use (as some expert men have told me) to take these Whales (whereof there is great store) is, they put themselves into a Canoe, which is like a barke of a tree, and in swimming approach neere the Whales side, then with great dexteritie they leape to his necke, and there they ride as on horse-back expecting his time, then he thrusts a sharpe and strong stake

(which he carries with him) into the Whales nostrill, for so they call the hole or vent by which they breathe, presently he beates it in with another stake as forcibly as he can; in the meane space the Whale doth furiously beate the Sea, and raiseth Mountaines of water, running into the deepe with great violence, and presently riseth againe, not knowing what to doe for paine: the Indian still sits firme, and to give him full paiment for this trouble, he beates another stake into the other vent or nostrill, so as he stoppeth him quite, and takes away his breathing, then he betakes him to his Canoe, which he holds tied with a cord to the Whales side, and goes to Land, having first tied his cord to the Whale, the which he lets run with the Whale, who leapes from place to place, whilst he finds water enough : being troubled with paine, in the end he comes neere the Land, and remaines on ground by the hugeness of his body, unable any more to move; then a great number of Indians come unto the Conquerour, to gather his spoiles, they kill him, and cut his flesh in peeeces, the which is bad enough: this doe they dry and beate into powder, using it for meate, it doth last them long : wherein is fulfilled, that which is spoken in another Psalme of the Whale, Peter Mendez the Adelantade did often speake of this kinde of fishing.”²³



Figure 6: “Methods used to hunt whales,” circa 1560, Timucas, northern Florida. Note. Reproduction of the original engraving LeMoyne / De Bry.

Although ignored in contemporary histories of whaling, the narratives of Native American whaling techniques published in Europe, along with the descriptive engravings of Theodor de Bry in the late 1500’s, must have greatly influenced the first commercial whaling fleets of the early 1600’s and it is no accident, that in the classic, *Moby Dick*, Tashtego, a Native American, was the main harpooner on the *Pequod*:

Next was Tashtego, an unmixed Indian from Gay Head, the most westerly promontory of Martha’s Vineyard, where there still exists the last remnant of a village of red men, which has long supplied the neighboring island of Nantucket with many of her most daring harpooners. In the fishery, they usually go by the generic name of Gay-Headers.”²⁴

Acosta reported on another manner of spearfishing that he observed personally, in Mexico:

“Yet was it not in the Sea, but in a River which they call great in the Province of Charcas, where the Indians Chiraquanas plunged into the water, and swimming with an admirable swiftnesse, followed the fish, where with darts and bookes (which they use to carry in their right hand, only swimming with the left) they wound the fish, and so

hurt they brought them forth, seeming in this more like unto fishes then men of the Land. But now that we have left the Sea, let us come to other kinde of waters that remaine to be spoken of.”²⁵

In 1983, an illustrated History of the West Indies was discovered. Written circa 1586, this manuscript contains several illustrations and descriptions of swimming. One narration described how Indian messengers carried maps and letters swimming across rivers without getting them wet. Others described the techniques and dangers of pearl diving by African slaves who, by the mid 1500’s had replaced the Native Americans. But the most interesting image shows an Indian woman bathing her children accompanied by the following description (figure 7):

“The Indian women take their children to the sea and wash them. The mother holds one by the hand and the other climbs on her back. They scrub them well so that they have no skin sores or itch and they are clean all over their bodies. The Indian women swim like fish in the sea.”²⁶



Figure 7: The Indian women swim like fish in the sea. Note. Oil on canvas. Reproduction of the International Swimming Hall of Fame based on the original that was painted by George Catlin, 1833.

In 1609, Henry Hudson passed through the Tappan Zee with two captives on board:

“Now as the voyage continued with a fair wind through the Highlands, the watchfulness of the captors relaxed and somewhere about the vicinity of Cornwall or Newburgh the savages found opportunity to leap overboard and swim ashore. They did not omit, following the traditions of their race, to shout back expressions of insult and defiance, which the Europeans could not fail to comprehend, even though they did not understand the language from which the terms of contumely were chosen.”²⁷

In 1611, French Explorer Samuel de Champlain, describes traveling with Indians down the a rapid in Canada, a harrowing experience for a non-swimmer:

“To do this they prepared eight canoes to run the rapids, and stripped themselves naked, and made me take off everything but my shirt; for often it happens that some are lost in shooting the rapids; therefore, they keep close to one another, to aid one another promptly if a canoe should happen to capsize. They said to me: ‘If by chance yours should happen to turn over, as you do not know how to swim, on no account abandon it, but hold on to the little sticks that are in the middle, for we will save you easily.’”²⁸

A few years later, the puritan, Roger Williams, the founder of Rhode Island, told a similar story about the Native Americans of New England:

“It is wonderfull to see how they will venture in those Canoes, and how (being oft overset as I have myselfe been with them) they will swim a mile, yea two or more safe to Land: I having been necessitated to passe Waters diverse times: with them, it hath pleased God to make them many times the instruments, of my preservation; and when sometimes in great danger I have questioned safety, they have said to me: Feare not, if we be overset I will carry you safe to Land.”²⁹

In 1673, John Josslyn, made a similar observation:

“You would think it strange to see, yea admire if you saw the bold Barbarians in their light Canows rush down the swift and headlong stream with desperate speed, but with excellent dexterity, guiding his Canow that seldom or never it shoots under water or overturns, if it do they can swim naturally, striking their paves under their throat like a dog, and not spreading their Arms as we do’ they turn their Canow again and go into it in the water.”³⁰

English writer and naval captain, Christopher Levett, made this observation about Indian children, on a visit to New England, in 1624: “When they are about 2 years old, they will take (their children) and cast them into the Sea, like a little dogge or Cat, to learn them to swimme.”³¹

In 1677, some English sailors, wanted to learn for themselves whether Indians had to learn to swim or came by it naturally like animals, the experiment was one of the incidents that led to King Phillip’s War:

As Squando’s “wife was paddling down the River Saco in a canoe, with her infant child. Some English sailors, coming along in a boat, accosted her brutally, and saying that (the Indians) could swim as naturally as young ducks, overset the canoe. The infant sank like lead. The indignant mother dove to the bottom and brought up her exhausted child alive, but it soon after died. Suando was so exasperated by this outrage, that with his whole soul burning with indignation, he traversed the wilderness to rouse the scattered tribes to a war of extermination against the English.”³²

In 1697, the first general circulation book on learning the Art of Swimming was written by Melchisédec Thévenot. It was the book that Benjamin Franklin describes in his autobiography as the one he used to teach himself how to swim.³³ In the preface, Thevenot wrote:

“Both the Grecian and Roman Histories are full of Narratives of the Undertakings of these sort of Divers. But to come to our times, it is most certain that the Indians and the Negroes excel all others in these arts of Swimming and Diving. ‘Tis to them the

Ladies are obliged for their Ornaments of Pearl, they are the divers who fish for them, the are also very useful for recovering Anchors and Merchandizes that have been cast away.”³⁴

In the 1702, the Jesuit Jacques Marquette wrote of an experience with the native inhabitants of Canada and upper Michigan:

“Nevertheless, these pool people took good care of me: they bore me on their shoulders, when it was necessary to pass over any brook’ and, whenever there were deep rivers to cross, they collected many pieces of dry wood which they bound together, and, making me sit upon this sort of boat, they began to swim, and pushed me before them to the other shore.”³⁵

In 1705, Virginia colonist Robert Beverley described how swimming helped the natives catch fish.

“Before the Arrival of the English there, the Indians had Fish in such vast Plenty, that the Boys and Girls won'd take a pointed Stick, and strike the lesser sort, as they Swam upon the Flats.

The Indian Way of Catching Sturgeon, when they came into the narrow part of the Rivers, was by a Man's clapping a Noose over their Tail, and by keeping fast his hold. Thus a Fish finding it self intangled, wou'd flounce, and often pull him under Water, and then that Man was counted a Cockarouse, or brave Fellow, that wou'd not let go; till with Swimming, Wading, and Diving, he had tired the Sturgeon, and brought it ashore.”³⁶

In the 1720's, Antoine Simone Le Page du Pratz, manager of a French Company that was colonizing New France, made the following observation about the many tribes³⁷ who inhabited the banks of the Mississippi and Missouri.

“Both boys and girls are early accustomed to bathe every morning, in order to strengthen the nerves, and harden them against cold and fatigue, and likewise to teach them to swim, that they may avoid or pursue an enemy, even across a river. The boys and girls, from the time they are three years of age, are called out every morning by an old man, to go to the river; and here is some more employment for the mothers who accompany them thither to teach them to swim. Those who can swim tolerably well, make a great noise in winter by beating the water in order to frighten away the crocodiles, and keep themselves warm.”³⁸

In 1744, the Jesuit de Charlevoix, described the physical education of Native American girls. “In addition to running, they swim with extreme speed; even women, though burdened with their children, which they carry on their arms, swim over large rivers.”³⁹ Years later, while traveling with the Lewis & Clark, a canoe that Sacagawea was traveling in tipped.

“Sacagawea seized her papoose in one hand and with the other retrieved most of the articles floating around. Captain Lewis, who witnessed the accident from the shore, had an impulse to strip his leather garments and swim to the rescue, but he wisely restrained his rash thought. Lewis commended Sacagawea's presence of mind in his journal: ‘The Indian woman, to whom I ascribe equal fortitude and resolution with

*any person on board at the time of the accident, caught and preserved most of the light articles which were washed overboard.”*⁴⁰

Cape May, New Jersey provides an instructive example of how the native population was displaced from their coastal habitats. John Cabot, the Englishman may have explored Cape May in 1498. Henry Hudson was the first European to sail up the Delaware River in 1609, but it was Cornelius Jacobson Mey, a Dutchman representing the Dutch West India Company, in 1623, who was first to explore and establish a European colony in the south-west corner of New Jersey. In 1630, agents of the Dutch company purchased the tract of land, which came to be known as Cape May, from nine resident chiefs of the Kechemeche and Leni-Lenape tribes, nomadic Algonquins who probably didn't understand that they had traded absolute ownership of their fishing and whaling village for a few trinkets. By the 1680's, reduced in number by disease and feeling themselves aggrieved in various ways by the rapid increase of white settlers, the remnants of the tribe held a council in which the majority voluntarily decided to emigrate westward.⁴¹ In the early 19th Century, Cape May was the first of many former the Indian fishing and whaling villages along the east coast that became America's beach resorts and aquatic playgrounds.

Another Indian Fishery that became a famous many nineteenth beach resort was Long Branch, New Jersey.

“A legend tells us that in those early times four men, Slocum, Parker, Wardell and Hulett, came from Rhode Island in quest of land. They found the Indians friendly but not disposed to sell. It was proposed by the Yankees that a wrestling match should be made up between one Indian and one of the whites, to be decided by the best in three rounds. If the champion of the white man won, they were to have as much land as they could walk around in a day ; if other- wise they were to leave peaceably. John Slocum was selected for the struggle — a man of great proportions, athletic and of great strength.

*Great preparations were made to witness the encounter. The spot chosen was the present Fishing Land. Slocum proved too much for the Indian, and after a hard struggle won. The land was divided and the descendants to this day own a portion of the land gained by the struggle.”*⁴²

Those who survived disease and the east coast European invasion migrated westward and joined the Shawnee and other Midwestern associations. In 1782, in western Pennsylvania, the leaders of a group of Christian Leni-Lenapes were invited to a “peace party” on an island in the Allegheny River and were promised protection from a band of murderous whites who had earlier slaughtered 100 members of their tribe at Gnadenhuetten. The promise was not kept and all were killed except Gelelemend, later to become a famous chief, “who made his escape by swimming.”⁴³

Today the surviving branches of the Shawnee tribe live in Oklahoma, but they are believed to be from the areas of southern Ohio, West Virginia and western Pennsylvania.⁴⁴ By 1800, the wave of the European invasion was flooding the Midwest onto Indian land. Two brothers, Techumseh and Tenskwatawa, known as the Profit, who were, like all Indian boys, taken to the water from the time they were babies and enjoyed swimming in the Mad and Miami Rivers during warm summer days,⁴⁵ started a movement that rejected the ways of the whites and promised that if the Indians returned to their traditional lifestyle, the whites would leave. In 1811, this threat to the Whites was quelled when William Henry Harrison attacked the Shawnee village at Tippecanoe and

killed the profit in what the whites called a Battle. Tecumseh escaped to Canada and allied himself and his followers with the British in the war of 1812 during which he was killed in 1813.

In the south, the majority of Creek “Red Sticks”⁴⁶ tribe, who roamed throughout Louisiana, Mississippi and Alabama, also allied themselves with the British against the Americans. In 1814, at a time when the British were putting the torch to the White House, Andrew Jackson led a force of 2,600 European American soldiers and his Indian allies, 500 Cherokees and 100 lower Creeks, against more than 1,000 Red Stick warriors, who were assembled behind a barricade that crossed the neck of a peninsula in the Tallapoosa River, in Alabama. Before the assault, Jackson’s Indian allies secretly swam 120 yards across the river where they stole the Red Stick canoes, which they intended to use for escape if the battle went badly. Instead, they were now used to transport a mixed force of Cherokee, Creek, and Tennessee Militia back to the peninsula.

The assault began with the Cherokee’s leading the way, as described in the contemporary account.

“Some dove into the river and began swimming towards the canoes anchored on the peninsula. With covering fire, they crawled under the bank of Horseshoe Bend while the others started swimming the canoes back to the opposite bank for reinforcements. The Cherokee began crossing the river in numbers and mustered on the bank.

With battle cries, they lunged over the breastworks and into the face of the battling Creeks. With attacks coming from the front and a new assault from the river, the Creeks dug in and began the bloodiest fighting of the war. A former Blount County School teacher, Lieutenant Sam Houston, courageously led a Cherokee charge over the breastworks with an arrow penetrating his upper thigh. A young David Crockett and William Carroll were also in the battle fighting furiously in hand-to-hand combat with the Creek warriors.”⁴⁷

What followed was a slaughter that effectively ended the Creek Wars and the southern offensive of the British in the War of 1812. In August, Jackson negotiated the Treaty of Fort Jackson, which forced the Creek to cede almost 20 million acres—nearly half their territory—to the U.S. After Horseshoe Bend, the European American population of Georgia and Alabama skyrocketed. In the latter state, for example, the non-Indian population rose from 9,000 in 1810 to 310,000 in 1830. Jackson’s reliance on the Cherokee swimmers in his Creek campaigns was quickly forgotten when he became President and removed the Cherokees down the “Trail of Tears.”

When Chief Junaluska, who had saved Jackson’s life at the Battle of Horseshoe Bend, and was among the veterans who led the amphibious assault on Horseshoe Bend removed to Oklahoma, he reportedly said: “If I had known Jackson would remove the Cherokee from our ancestral lands, I would have never saved him that day on the Tallapoosa River.” When Junaluska reached the Oklahoma territory, however, he looked at it, turned around, and marched back to his beloved Smoky Mountains. His return to North Carolina angered some military leaders, but the state stepped in and made Junaluska a citizen to honor him for his service to America during the War of 1812. He was given a farm near present-day Robbinstonville, N.C. When the Cherokee Chief died, he was buried on a ridge near the old Mother Church in the City.

“Very little is recorded about the travel details of Cherokee war parties, but a common way to cross broad and deep rivers was for each man to wrap his clothing and weapons in a skin float. He would then jump into the river with the float and push it ahead of him as he swam across to the opposite shore. To make the floats, men carried deerskins

and bearskins in their packs. These were spread out on the ground with the hair side turned up. The gear was placed on top of the skins, with the heaviest objects, such as guns, on the bottom of the pile. The skins were wrapped around the gear and knots were tied in the shanks of the skins to secure the bundle. The floats took only a few minutes to fashion, and little travel time was lost when the war party paused to do this.

To move very large loads across a river, a crude framework raft was fashioned with dry pine branches that were lashed together with strong vines. The completed raft was placed at the river's edge, loaded, pushed into the water, and paddled or poled across by the warriors.”⁴⁹

After the Battle of Horseshoe Bend, many of the defeated Creeks migrated into Florida and joined the Seminole people. One of the chiefs of this new tribe in the 1830's, who led the resistance against the European Americans was Osceola, who according to one contemporary story, gained his status as a chief, in part due to his swimming ability (figure 8):

“When the trials with the bow had ended, the crowd all rushed towards the river, and a hundred young Seminoles had stripped for the contest before the chief could reach the bank. The Creeks soon followed this necessary example, and the firm muscular forms of the noble competitors for the manly sport (which was dignified when England's greatest poet [Lord Byron, in 1812] plunged into the broad bosom of the Hellespont) were thrown into a thousand different postures, while they capered impatiently upon the white sand that lined the beach. At length the parties were arranged for the start, the signal was given, and with a tremendous plunge the whole troop entered the stream together; with many a shriek and loud and joyous yell they dashed along upon the buoyant wave; the current was gentle, the water was as limpid as the air that swept across its bosom, and with fierce and desperate efforts the ambitious swimmers dashed towards the destined willow, from whose low and bending boughs each must obtain a fresh leaf, and then swim back to where they first set out. Some tired on the way, or left the race to rest upon the shore; others got weary of the toilsome sport, and moved at leisure, willing to be beath; but a few of the most skillful and aspiring continued to the end, and among them was young Osceola, who, with heaving chest and streaming locks, first placed his foot upon the sand and nobly won the prize.”⁵⁰

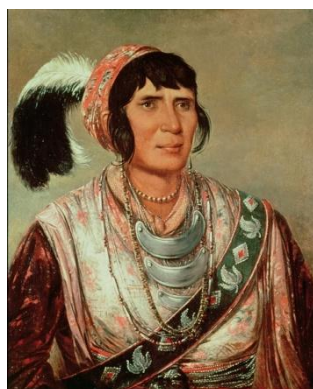


Figure 8: Osceola, circa 1838. Note. Taken from George Catlin.

In 1809, a Swiss educator, Peter Heinrich Clias, developed a system to teach Europeans how to swim and established swim school all over Europe. In 1825, he wrote

a book on gymnastic exercises that included a new Treatise on the Art of Swimming, which Clias said was the most important of all the exercises in his book. In it, he acknowledged that the Indians, were the greatest of all swimmers:⁵¹

“When we begin to swim at an early period, we are generally certain of arriving to a degree of perfection, beyond which nothing can be desired; -- such is probably the degree of superiority in swimming which the inhabitants of the Archipeleago have arrived, that what is said of their expertness almost borders on incredibility.”

The Carabees, expert at everything, are particularly so in the art of swimming, as if they were born in the water and formed for it; they swim like fish; the women acquit themselves as well as the men. When a canoe overturns, which happens very frequently, because they carry too much sail, they absolutely lose nothing of their baggage, and their being drowned is a thing never heard of. We see on these occasions the children swimming about their mother like so many little fish, and their mothers are so dexterous as to support themselves on the water with their infants at the breast, whilst the men are employed in putting the boat to rights, and emptying out the water. – In 1699, a small vessel belonging to the monks of La Charite, was overset by a gust of wind, between St. Lucie and Martinique, and all who were in it perished with the exception of a Carabee, who, without being aided by a plank, or other morsel of wood that might have assisted him, kept himself buoyant upon the wate for the space of sixty hours, supporting hunger, thirst, and the violence of the tempest, which caused the loss of the vessel, and at last landed at a small creek, and communicated the news of the wreck which had happened.

Today the Osage tribe live on a reservation in arid Oklahoma, but they are believed to have originated in the Ohio River Valley. In 1840, Victor Trixier, a Frenchman, visited the Osages in their village along the Missouri and wrote about two swimming experiences in the book of his Travels, published in 1844:⁵²

“We went bathing, too, as much to escape from the suffocating heat of the prairie, which was almost entirely deprived of shade, as to protect ourselves from the awful vermin which devoured our Indian friends. We swam in their company. The Osage do not swim the way we do; they strike the water with their legs out-stretched; when they do not want to be heard they move without letting their feet out of the water. Their swimming is not so graceful as ours, but there is no doubt that they swim faster and longer than Europeans.

The water was very high when we reached the Arkansas River. Nevertheless I crossed on horseback, soaking the lower part of my body. However, the pack horses were not able to swim across. Bull boats were built for the luggage. Skins used for building the lodges were stretched and the edges raised and tied in such a way that they formed a boat in the shape of a square. Besides the luggage, young children and pups were put on board these frail craft. The men and the women took off their clothes and swam across, pushing the boats to the other side. The horses were driven into the Arkansas River, and when everything was on the other bank, the swimmers put on their clothes again and we resumed our journey.”⁵³

The most detailed descriptions of the swimming skills and styles of Native American swimmers, which were no doubt universally known, comes to us from the art and writings of George Catlin. Catlin was born in Pennsylvania in 1796 and from his childhood was fascinated by the stories his mother told him about Western Frontier and

her experiences as a captive of a tribe of Indians when she was a young girl. After a brief career as a lawyer, he set out to document on canvas what he believed to be a vanishing race of people. Catlin began his journey in 1830 when he accompanied General William Clark on a diplomatic mission up the Mississippi River into Indian Territory. With his base of operations in St. Louis, Catlin took five trips between 1830 and 1836, visiting fifty tribes.

“The scenery along the banks of this little river,⁵⁴ from village to village, is quite peculiar and curious, rendered extremely so by the continual wild and garrulous groups of men, women and children who are wending their way along its winding shores, or dashing and plunging through its blue waves, enjoying the luxury of swimming, of which both sexes seem to be passionately fond. Others are paddling about in their tub-like canoes, made of the skins of buffaloes.”⁵⁵

Of particular interest to our story is his visit to the Mandan Village in 1832. The Mandans were a non-nomadic people who lived along the banks of the Knife River, in the Dakotas. Using this tribe as an example of the swimming skills he observed in all Native Americans he wrote the following:

“The art of swimming is known to all the American Indians; and perhaps no people on earth have taken more pains to learn it, nor any who turn it to better account. There certainly are no people whose avocations of life more often call for the use of their limbs in this way; as many of the tribes spend their lives on the shores of our vast lakes and rivers, paddling about in their childhood in their fragile bark canoes, which are liable to continual accidents, which often throw the Indian upon His natural resources for the preservation of his life.

There are many times also, when out upon their long marches in the prosecution of their almost continued warfare, when it becomes necessary to plunge into and swim across the wildest streams and rivers, at times when they have no canoes or craft in which to cross them. I have as yet seen no tribe where this art is neglected. It is learned at a very early age by both sexes, and enables the strong and hardy muscles of the squaws to take their child upon the back, and successfully to pass any river that lies in their way.

The mode of swimming amongst the Mandans, as well as amongst most of the other tribes, is quite different from that practiced in those parts of the civilized world, which I have had the pleasure yet to visit. The Indian, instead of parting his hands simultaneously under the chin, and making the stroke outward, in a horizontal direction, causing thereby a serious strain upon the chest, throws his body alternately upon the left and the right side, raising one arm entirely above the water and reaching as far forward as he can, to dip it, whilst his whole weight and force are spent upon the one that is passing under him, and like a paddle propelling him along; whilst this arm is making a half circle, and is being raised out of the water behind him, the opposite arm is describing a similar arch in the air over his head, to be dipped in the water as far as he can reach before him, with the hand turned under, forming a sort of bucket, to act most effectively as it passes in its turn underneath him.

By this bold and powerful mode of swimming, which may want the grace that many would wish to see, I am quite sure, from the experience I have had, that much of the fatigue and strain upon the breast and spine are avoided, and that a man will preserve his strength and his breath much longer in this alternate and rolling motion, than he can in the usual mode of swimming, in the polished world.”⁵⁶

Later, in the same book, Catlin described what inspired his only painting that shows Indians swimming using the overarm crawl stroke (figure 9).⁵⁷

“The old chief, having learned that we were to cross the river, gave direction to one of the women of his numerous household, who took upon her head a skin-canoe (more familiarly called in this country, a bull-boat), made in the form of a large tub, of a buffalo’s skin, stretched on a frame of willow boughs, which she carried to the water’s edge’ and placing it in the water, made signs for us three to get into it. When we were in, and seated flat on its bottom, with scarce room in any way to adjust our legs and our feet (as we sat necessarily facing each other), she stepped before the boat, and pulling it along, waded towards the deeper water, with her back towards us, carefully with the other hand attending to her dress, which seemed to be but a light slip, and floating upon the surface until the water was above her waist, when it was instantly turned off, over her head and thrown ashore; and she boldly plunged forward, swimming and drawing the boat with one hand, which she did with apparent ease. In this manner we were conveyed to the middle of the stream, where we were soon surrounded by a dozen or more beautiful girls, from twelve to fifteen and eighteen years of age, who were at that time bathing on the opposite shore.

They all swam in a bold and graceful manner, and as confidently as so many otters or beavers; and gathering around us, with their long black hair floating about on the water, whilst their faces were glowing with jokes and fun, which they were cracking about us, and which we could not understand.

In the midst of this delightful little aquatic group, we three sat in our little skin-bound tub (like the “three wise men of Gotham, who went to sea in a bowl,” &c.), floating along down the current, losing sight, and all thoughts, of the shore, which was equidistant from us on either side; whilst we were amusing ourselves with the playfulness of these dear little creatures who were floating about under the clear blue water, catching their hands on to the sides of our boat; occasionally raising one-half of their bodies out of the water, and sinking again, like so many mermaids.

In the midst of this bewildering and tantalizing entertainment, in which poor Ba’tiste and Bogand, as well as myself, were all taking infinite pleasure, and which we supposed was all intended for our especial amusement; we found ourselves suddenly in the delightful dilemma of floating down the current in the middle of the river; and being turned round and round to the excessive amusement of the villagers, who were laughing at us from the shore, as well as these little tyros, whose delicate hands were besetting our tub on all sides; and for an escape from whom, or for fending off, we had neither an oar, or anything else, that we could wield in self-defense, or for self-preservation. In this awkward predicament, our feelings of excessive admiration were immediately changed, to those of exceeding vexation, as we now learned that they had peremptorily discharged from her occupation of our fair conductress, who had undertaken to ferry us safely across the river; and had also very ingeniously laid their plans, of which we had been ignorant until the present moment, to extort from us in this way, some little evidences of our liberality, which, in fact, it was impossible to refuse them, after so liberal and bewitching an exhibition on their part, as well as from the imperative obligation which the awkwardness of our situation had laid us under. I had some awls in my pockets, which I presented to them, and also a few strings of beautiful beads, which I placed over their delicate necks as they raised them out of the water by the side of our boat; after which they all joined in conducting our craft to the shore, by swimming by the sides of, and behind it, pushing it along in the direction where they designed to land it, until the water became so shallow, that their feet were upon the bottom, when they waded along

with great coyness, dragging us towards the shore, as long as their bodies, in a crouching position, could possibly be half concealed under the water, when they gave our boat the last push for the shore, and raising a loud and exulting laugh, plunged back again in the river; leaving us the only alternative of sitting still where we were, or of stepping out into the water at half leg deep, and of wading to the shore, which we at once did, and soon escaped from the view of our little tormentors, and the numerous lookers-on, on our way to the upper village, which I have before mentioned.”



Figure 9: Mandan Village painted in 1833. Note. Reproduction of the original by George Catlin.

Another description of the bathing habits of the Mandans was published in 1862, in a collection of articles on the ethnography of these tribes, but this observation by Dr. F.V. Hayden was made in 1829, prior to Catlin's visit to the village on the hill.

“Both males and females of every age, especially the young, were very cleanly in their persons and neat in their dress. It was their custom, and still is, growing out of some ancient tradition, to bathe in the river every morning. Even in the winter season they cut holes in the ice, immerse the body, and it is no uncommon thing to see them after taking their cold bath sit naked on the ice, comb their hair, and paint themselves in a snow-storm, the thermometer from 10 to 30 below zero. This constant ablution at all seasons had the effect of inuring the system to cold, for they never shiver, be the weather ever so severe, and sometimes they seem to prolong the making of their toilet in proportion as the air is intensely cold. At all events the practice was a good one for the Indians, inasmuch as it kept their bodies free from most diseases and eruptions incident to their manner of life, and it was remarked that they were uniformly healthy and vigorous. As a general rule the females despised the promiscuous and illicit intercourse with the other sex, so much practised by some of the other tribes, and consequently they were free from syphilitic diseases.”⁵⁸

Before either Catlin or Hayden had their encounters with the Mandans, Alexander Henry visited their village and noted in his journal the expertness of the young men in getting the horses across the river, one swimming ahead with the rope in his teeth, while others swam on each side, and in the rear, driving each horse rapidly. He also saw swimming skills used for another purpose:⁵⁹

“These people collected their fuel in the spring, when the ice broke up, and great quantities of wood drifted down. The young men were accustomed to swim out among

the drifting ice and bring in the trees, however large, which they hauled out on the bank. Immense piles of driftwood were seen oppsite each village, and some of the trees were very large. While collecting this driftwood, they also drew to land great numbers of drowned buffalo, of which they were very fond.”

There was a tragic and melancholy postscript to the Mandan story, for in the summer of 1838, this tribe of swimmers was wiped out by a small pox epidemic. It was communicated to them from some infected persons on board one of the steamers belonging to a company of fur-traders. So virulent was the disease, that within a few weeks it swept off nearly the whole tribe. The scene of death and terror was said by those who witnessed it, to have been frightful in the extreme. Great numbers perished by leaping into the river in the paroxysm of fever, being too weak to swim out. Those who died in the village lay in heaps upon the floors of the huts. As it spread to other contiguous tribes, the Minatrees, the Knisteneaux, the Blackfeet, the Cheyennes and Crows –fully twenty-five thousand perished in the course of four or five months.⁶⁰

In 1844, a promoter took nine Ojibbeway Indians to London. Their appearance, wrote the promoter, “affords an opportunity, never before presented to the British public, of obtaining a personal acquaintance with the appearance, habits, manners and customs of these curious and fast-fading tribes.”⁶¹

During the visit, two of the Ojibbeways were invited to give a swimming exhibition at the High Holborn Bath. The event was recorded for posterity in the Times (figure 10, 11):

“The Ojibbeway Indians -- April 20, 1844 -- In consequence of the British Swimming Society having promised a first-class silver medal to the best swimmer of the Ojibbeway Indians, the swimming Bath in High Holborn, where the match was appointed to be decided, was crowded with visitors. Flying Gull (We-nish-ka-wea-bee) and Tobacco (Sab-ma) were selected as competitors, the rest of the party being seated to witness the trial of skill. At a signal they jumped into the bath, and, on a pistol being discharged, struck out and swam to the other end, of the bath, a distance of 130 ft., in less than half a minute. The Flying Gull was the victor by 7 feet. They swam back again to the starting-place, where Flying Gull was a second time the victor. The style of swimming is totally un-European. They lash the water violently with their arms, like the sails of a windmill, and beat downwards with their feet, blowing with force, and forming grotesque antics. They then dived from one end of the bath to the other with the rapidity of an arrow, and almost as straight a tension of limb. Mr. Harold Kenworthy, the well-known English swimmer, went through a series of scientific feats in the course of the day, and, after the above match, beat the Indians in swimming with the greatest ease.”⁶²

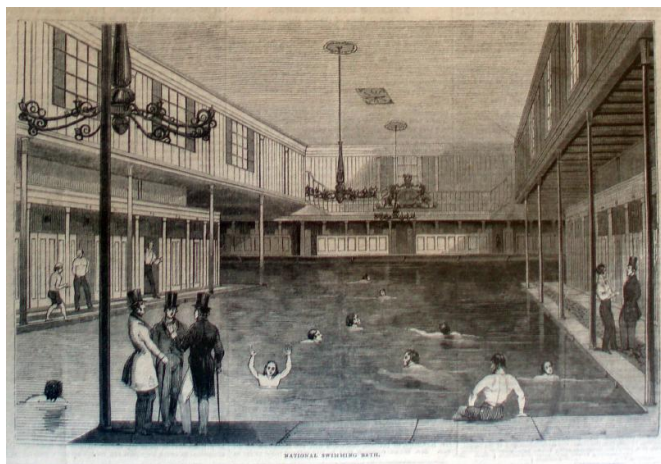


Figure 10: High Holborn Bath in London, scene of swimming exhibition by Flying Gull and Tobacco, two Ojibboways, in 1844.



Figure 11: “Ojibbeways”. Flying Gull and Tobacco, 1844. Swimming exhibition in London. Note. Reproduction of the original by George Catlin.

There are many explanations as to why the Englishman, using the breaststroke, was able to defeat the two Ojibbeways. The Ojibbeway tribes were British Allies during the time of Tecumseh’s War and the War of 1812. They were driven into Canada where they occupied the shores of Lake’s Huron and Superior. While swimming was still a tradition, they probably hadn’t been in the water in months or even years and the tribe in general, was beginning to lose its aquatic skills as they no longer roamed into the more temperate climates that extended their swimming season. Nor, as we have seen, were all Indians great swimmers. In London, they competed against England’s best and lost, proving to the English that the breaststroke was superior to the Indian technique.

Following the swimming exhibition of the Ojibbeways in London, the promoter encountered financial problems and the nine fell under contract to George Catlin, who befriended them, used them in his exhibitions, supported them and made several sketches and paintings of them in the book he subsequently wrote about them.⁶³

Another Catlin painting of note is that of the Sauk Chief, Pam-a-ho, the adopted son of the Black Hawk. Catlin painted both chiefs while they were prisoners at the Jefferson Barracks, in St. Louis, after their capture following the cruelly misnamed massacre known as the Battle of Bad Axe⁶⁴, in 1832. As the Indians believed in the interactive relationship between similar things, the fact that Pam-a-ho is translated as either “The Swimmer,” or “Fast Swimming Fish,” undoubtedly signified that Pam-a-ho was a great or renowned swimmer and the lithe, lean and long-muscled upper body and arms visible in the portrait are strikingly similar to the physical characteristics of modern competitive swimmers.

In 1834, it was reported that, “*when a war-party of Saukies and Foxes surprised a small encampment of the Winnebagoes, and massacred all the persons within it, except one gallant boy, about twelve years of age, who, after discharging a gun, and killing a Saukie brave, made his escape by swimming the Mississippi, and brought the news of the slaughter to Fort Crawford, at Prairie du Chien.*”⁶⁵

As described in numerous accounts, recreational swimming was a favorite pastime of the Indians. When David Giddings became the first white man to visit Sheboygan, Wisconsin on June 25th, 1835, he wrote:

*"We came on the beach of the lake, and when we arrived in sight of the river the mouth or outlet was full of young Indians swimming."*⁶⁶

In 1859, Dr. F.V. Hayden, a geologist and amateur ethnographer explored the Yellowstone and Missouri Rivers, and made the following observation about the Arikaras, a tribe that by the 1850's occupied the former village of the Mandans.

*"The Arikaras are also good fishermen, and take the fish by placing pens made of willows in the eddies of the Missouri. The fish entering the door of the pen or basket, it is closed, and often large numbers are thus secured. The Arikaras are also good swimmers, venturing out on floating cakes, of ice when the Missouri breaks in the spring, and bringing ashore the bodies of drowned buffalo that are drifting by."*⁶⁷

During the summer months, a favorite pastime of the Choctaw boys and men "consisted in trying to swim blindfolded a wide stream to a certain point on the opposite bank. The first to reach the goal was declared the winner."⁶⁸

The Native Tribes of the Pacific Northwest were also excellent swimmers:

*"The Indians ... on the Columbia are expert in the management of their canoes, in which they embark fearlessly on the waves of the Pacific in the roughest weather; and such is their skill that they keep afloat amid the angry billows, when it would seem impossible that such frail vessels could live. The upsetting of a canoe, in such circumstances, is of little consequence, for these Indians are such admirable swimmers, that they right their canoes when over turned, bail out the water, and resume their seats; or if necessary, abandon them, and swim to the shore."*⁶⁹

The Every Boy's Book⁷⁰ related:

"The children of many uncivilized nations, especially in warm climates, frequent the water from an early age, and seem almost to swim by instinct. The remarkable powers of endurance, agility, and strength manifested while in the water by many individuals of savage tribes are well known, -- powers which often enable them to come off victorious in struggles with some of the fiercest inhabitants of those rivers and coasts."

It was in the Columbia River, that an American sailor from Brooklyn, who would later become the great swimming coach of the New York Athletic Club, and who developed America's first great international swimming star, Charles Daniels, was taught a lesson by a Native American swimmer that he used to advance competitive swimming. Here's the story as related by Sundstrom in his old age:

"From the time of ancient mariners, when ships were in port looking for diversions, competitions were held to see which ships had the fastest swimmers -- which partially explains why there was a swimming competition exclusively for sailors at the first Olympic Games in 1896. From 1875 to 1885, the captain and crew of the Western Belle won thousands of dollars backing Gus Sundstrom. Then, in the fall of 1879, when the Western Belle sailed up the Columbia River, the great river of the Pacific Northwest, Gus met his match.

When the Belle anchored, some of the sailors set off for shore to gather clams and oysters. On the beach they were met by a friendly group of Indians who showed them where the best mollusks could be found. Later, the Indians invited the sailors to

their huts and entertained them. In the course of the evening, the crewmen heard stories about a renowned Indian swimmer by the name of Big Red Fish. One thing led to another and a match of a mile in length was arranged between Sundstrom and the Indian.

The confident sailors knew an easy mark when they saw one and induced the seemingly reluctant Indians to gamble valuable furs and crafts by offering large sums money, trade goods and whiskey. By the time of the race, the book was valued at a thousand dollars.

As the two naked swimmers climbed on the "starting rock," the Western Belle's heavily wagered crewmen and other whites anxiously waited for the starting signal in their in skiffs. Hundreds of Big Red Fish's supporters lined the river bank and filled canoes of all sizes and shapes. When the Belle's captain fired his pistol to start the race, the shouts and screams of the spectators echoed like thunder.

While Sundstrom dove head first under water and stayed invisible for thirty seconds, the Indian jumped in feet first, threw his chest and arms forward and started thrashing the water like a windmill.

By the time Sundstrom surfaced and began his famous breaststroke he was ten yards behind. Within a few minutes he trailed Big Red Fish by one hundred yards. To the great amusement of the Indians, Big Red Fish now played to his audience. He turned summersaults, bobbed up and down in the water, wiggled his feet out of the water and put his hand to his forehead pretending to search the river for his competitor. When Sundstrom got within twenty-five yards, the Indian resumed his speed swimming and raced to the finish line, winning by two hundred yards. The Western Belle, its crew and Gus Sundstrom had just experienced what became know in nautical circles as "the Columbia River Sting."

Over the next two years, Sundstrom adapted what he had seen from Big Red Fish's stroke and developed the flutter kick that greatly improved his speed and became the kick for the American crawl used by Charles Daniels, the fastest swimmer in the world from 1904 - 1911. By the time the Western Belle returned to Astoria in Oregon, in 1881, Gus was able to turn the tables on the Indian.

A few years later, an amateur swimmer from London, by the name John Trudgen, traveled to the Amazon River basin in South America where he observed local indians swimming in aboriginal style similar to that of Big Red Fish. While Sundstrom remained before the mast until 1885, Trudgen returned to England where he shattered the English and world record in the 100 yard swim and opened a successful swimming school that made both him and his stroke world famous."⁷¹

We can get an idea of how great Native American swimmers might have been by looking at the life of Native American, Hawaiian born Duke Paoa Kahanamoku (figure 12).



Figure 12: Duke Kahanamoku swimming butterfly. Note. Reproduced of the original from the International Swimming Hall of Fame.



Figure 13: Surfers and swimmers in a wavy sea. Note. Reproduced of the original from the International Swimming Hall of Fame.

In 1911, Duke, emerged from obscurity to smash Charlie Daniels World records. Unlike most other native populations, which were nearly wiped out by disease and relocated away from the aquatic environment, swimming remained an integral part of native life in Hawaii into the twentieth century. At the 1912 Olympic Games, the US team, dominated by Hawaiians were the outstanding swimmers of the meet. On his way to the 1912 Olympiad in Stockholm, Sweden, Duke met another native American Jim Thorpe, celebrated as the greatest all-around athlete of his time. *“When Jimmy and I were on the boat to the Olympics in Sweden,” Duke remembered, “we had a talk. I said, ‘Jimmy, I’ve seen you run, jump, throw things and carry the ball. You do everything so why don’t you swim too?’ ‘Jimmy just grinned at me with that big grin he had for everyone, and said, ‘Duke, I saved that for you to take care of. I saved that for you.’”*

“A funny thing about my swimming,” went on the Duke, “is that from the time I was a kid I used a modern crawl kick. That’s supposed to be a modern invention, but I used it naturally – always used it. Nobody ever showed it to me. I swam that way the first time I ever swam out into the surf. The fact is there’s no such thing as a modern way to swim. I have no doubt the ancient Hawaiians used every stroke we know and perhaps had better swimming for than we’ll ever have.”⁷²

Had Native North Americans remained in their aquatic environments into the 20th Century, like the Hawaiians, perhaps there would have been many more Olympic swimming champions, like Duke Kahanamoku, from the indigenous population of North America (figure 13).

A Note on the Effect of the Loss of Swimming to Native Populations

Testimony of Ambrose McBride, Tribal Elder, Crow Creek Sioux Tribe, Fort Thompson, SD before the Senate Committee of Indian Affairs:⁷³

“The tribal elders at Crow Creek remember growing up and living in the bottomlands along the Missouri River. We remember the higher quality of life that existed when our community was located in the wooded area along the Missouri River.

Our families lived modestly, but well. I grew up, as a boy, in the woods along the river in the part of the community known as the Hollywood area. We children picked and ate plums, berries, and currants. Learning how to swim was a must, and it was a relaxation that carried on the rest of the summer. The boys in the era went barefoot all summer long, and everyone was ready to go swimming at any time. We, as a community, truly lived in harmony with the Missouri River, living off the resources it

provided us. [After serving in the Korean War, the river was dammed and the village was relocated.] Overnight we went from our community that lived and worked in the wooded area of the Missouri River into public housing areas on the plains above the dam. The social impacts were dramatic. Unemployment, alcoholism, and crime, none of which were major problems prior to our relocation, became rampant.”

A Note on Mineral Waters and Thermal Springs

North America Indians introduced early colonists to the abundant mineral and thermal springs of North America. Like the ancient Greeks and Romans, Native Americans recognized the health benefits of hydro-therapy and viewed these natural springs as a special gift from a Great Spirit.

The first commercial spa in colonial America was founded in Saratoga, New York, which was inhabited by the Iroquois Indians who called the area “Sarachtogue,” which means “hillside of a great river” or “place of the swift water”. Native Americans flocked to the valley each summer for healing and peaceful meditation by the natural springs. According to legend, these springs and others like it (such as Warm Springs, Virginia, Warm Springs, Georgia and Hot Springs, Arkansas) were a safe haven for warring tribes who would bring their injured to the bubbling waters to recuperate. By the mid 1800s, commercial spas dotted the landscape of the east coast – but Indians were no longer welcome in any of them.

Conclusion

Based on research of the literature housed in the International Swimming Hall of Fame and other resources, the history of Native American swimming is a truly incredible story and one that has never been told. Native Americans taught the Europeans how to swim, dive, hunt, fish and navigate the inland and coastal waterways. Native Americans swimmers, used tactics later adopted by UDT and Navy Seal teams, provided the expertise and manpower to launch the American Whaling fleets that were the oil industry of their day and which brought immense wealth to America. Perhaps without realizing it, but certainly without recognizing it, the native aquatic culture is now modern American culture. Americans strive to teach their children to swim from birth and flock to beaches, pools and rivers to enjoy swimming as Native American’s once did. We surf, canoe, fish, dive and recreate in the water by the millions. Funding is needed to do additional research and to create an interactive, world-class museum exhibit that will both tell this story to the world and inspire Native Americans to get back in the water and swim, for exercise, better health and perhaps, spiritual fulfillment.

References

- ¹Christopher Columbus, *The Journal of his first Voyage: an abstract of the original journal made by the Admiral’s companion, Las Casas*, Jharrolds, London, 1925 pp. 24, 26-27.
- ²A Spanish “league” measured 5000 varas (0.84 m each), which was about 4.2 km, or 2.6 miles
- ³Columbus, p. 138
- ⁴Francis Augustus MacNutt, *De Orbe Novo: The Eight Decades of Peter Martyr D’Anghera*, Vol. 1., G.P. Putman's Sons, NY, 1912, p. 313
- ⁵William Phillips & Carla Phillips, Carla, *The World’s of Christopher Columbus*, Cambridge Press, 1991. p. 204
- ⁶Robert Fuson, *The Log of Christopher Columbus*, International Marine Publishing, Camden, Maine, 1987. pp. 110, 179
- ⁷MacNutt, p. 75, 315
- ⁸R.H. Major, *Christopher Columbus*, Hakluyt Society, London, 1848, pp. 59-60
- ⁹MacNutt, p. 295
- ¹⁰L.A. Dutton, *The Life of Bartholome de Las Casas*, Herder, St. Louis, Missouri, 1902 p. 39, et. al.

- ¹¹Florian Alexander, *The Story of Ponce de Leon*, E.O. Painter, Deland, Florida, 1903
- ¹²Alexander, p. 128
- ¹³Mrs. Hodson, *Lives of Vasco Nunez de Balboa, and Francisco Pizarro*, William Blackwood, London, 1832 p. 22
- ¹⁴MacNutt, pp. 20, 313, 387
- ¹⁵MacNutt, p. 142
- ¹⁶MacNutt, p. 410
- ¹⁷Edward Shaw, *Discoverers and Explorers*, American Book Company, New York, 1900, pp. 102-106
- ¹⁸Buckingham Smith, *Narratives of Hernando de Soto: translated from Oviedo's History*, Vol 1, A.S. Barnes, New York, 1904, pp. 42-43
- ¹⁹John Carter Brown Library, Brown University, Archive of Early American Images and Jacques LeMoyne Galleries, University of South Florida
- ²⁰Woodbury Lowery, *The Spanish Settlements Within The Present Limits of the United States*, G. P. Putnam's Sons, New York, 1905, p. 61
- ²¹Woodbury Lowery, *The Spanish Settlements Within The Present Limits of the United States & Florida, 1562-1574*, G. P. Putnam's Sons, New York, 1911, p. 251-252.
- ²²Samuel Purchas, *Purchas His Pilgrimage*, Vol XV, James MacLehose and Sons, Glasgow, 1906, pp. 38-39
- ²³Purchas, pp.39-40
- ²⁴Herman Melville, *Moby Dick*, Collector's Library, CRW Publishing, London, 2004, p. 179
- ²⁵Purchas, p. 40
- ²⁶Morgan Library, *Histoire Naturelle des Indes*, Illustrated manuscript, ca. 1586
- ²⁷Edgar Mayhew Bacon, *Henry Hudson, His Times and His Voyages*, G. P. Putnam's Sons, New York and London, 1907, p. 156
- ²⁸Samuel de Champlain, *The Voyages and Explorations of Samuel de Champlain, Narrated by Himself*, Vol 1, Allerton Book Co., New York, 1902, p. 251
- ²⁹Roger Williams, *A Key Into the Language of America*, Gregory Drexler, London, 1643 reprinted by John Miller 1827. p. 99
- ³⁰John Josslyn, *An Account of Two Voyages to New England*, G. Widdowes, London, 1675
- ³¹George Parker Winship, *Sailors Narratives of Voyages Along the New England Coast*, Houghton, Mifflin & Co., Boston, 1905, p. 286
- ³²John S. Abbott, *History of King Phillip, Sovereign Chief of the Wamaponogs*, Harper & Brothers, New York, 1857, p. 386
- ³³Benjamin Franklin, *The Autobiography of Benjamin Franklin*, American Book Company, New York, 1907, p. 107
- ³⁴Monfieur Thevenot, *The Art of Swimming*, Dan Brown, London, 1699
- ³⁵Reuben Thwaites, editor, *The Jesuit Relations and Allied Documents, vol LXVI*, The Burrows Brothers, Cleveland, 1900, pp. 272 - 3
- ³⁶Robert Beverley, *The History and Present State of Virginia*, Part 3, R. Parker, London, 1705, p. 33
- ³⁷The Natchez, the Canzas, the Othoues, the White Panis, the Black Panis, the Panimachas, the Aiouez, the Padoucas. the Aiouez, the Othoues, and the Osages.
- ³⁸Antoine-Simon Le Page Du Pratz, *History of Louisiana, Or of the Western Parts of Virginia and Carolina: Containing a Description of the Countries that Lie On Both Sides of the River Mississippi*, T. Bекet, London, 1774, p. 320
- ³⁹Rev. P. F. X. de Charvelovoix, *History and General Description of New France*, vol 1., Harper, New York, 1900, p. 140
- ⁴⁰*Montana: The Magazine of Western History*, Vol. 5, No. 3, Lewis and Clark Expedition, Sesquicentennial Issue (Summer, 1955), p. 9
- ⁴¹Lewis Townsend Stevens, *The History of Cape May County*, New Jersey, published by the author, Cape May, NJ, 1897
- ⁴²George C. Martin, *History of Asbury Park and Long Branch, together with the traditions of the Indians & settlers of Monmouth & Ocean counties*, N.J., privately published, 1903
- ⁴³Access Genealogy (2012). Delaware Indian Chiefs and Leaders. Retrieved 30 April 2012 from <http://www.accessgenealogy.com/native/tribes/delaware/delawarechiefs.htm>

- ⁴⁴Mercer Online (2012). The Shawnee. Retrieved 30 April 2012 from <http://www.merceronline.com/Native/native02.htm>
- ⁴⁵Edward Eggleston and Lille Eggleston Seelye, *Tecumseh and the Shawnee Prophet* Dodd, Mead & Co, New York, 1878, p. 29
- ⁴⁶The city of Baton Rouge, Louisiana takes its name from the “Red Sticks.”
- ⁴⁷Donald Hickey, *The War of 1812, A Forgotten Conflict* (Chicago: University of Illinois Press, 1989); J. Leitch Wright, *Creeks & Seminoles: The Destruction and Regeneration of the Muscogulge People* (Lincoln: University of Nebraska Press, 1992)
- ⁴⁹Thomas Mails, *The Cherokee People*, Counc Oak Books, Tulsa, OK, 1992
- ⁵⁰Anonymous (By “A Southerner”) *Osceola, or Fact and Fiction: A Tale of the Seminole War*, Harper & Brothers, New York, 1838, p. 108 - 110
- ⁵¹Captain P. H. Clias, *An Elementary Course of Gymnastic Exercises; and A New and Complete Treatise on The Art of Swimming*, Sherwood, Gilbert and Piper, London, 1825, pp. 149-50
- ⁵²Victor Tixier, *Tixier's Travels on the Osage Prairies* (1840), Edited by John Francis McDermott, University of Oklahoma Press, 1940, pp. 182, 254-55.
- ⁵³Dr. F. V. Hayden, “Contributions to the Ethnography and Philology of the Indian Tribes of the Missouri Valley”, *The Transactions of the American Philosophical Society*, C. Sherman & Son, Philadelphia, 1862, p. 429.
- ⁵⁴The Knife River, a tributary of the Missouri in South Dakota.
- ⁵⁵George Catlin, *Letters and Notes on the Manners, Customs And Condition of the North American Indians*, vol. 1, David Bogue, London, 1844, LETTER—No. 23.
- ⁵⁶Catlin, pp. 96-97
- ⁵⁷Catlin, pp. 196-197
- ⁵⁸op.cit.Dr. F. V. Hayden p. 429.
- ⁵⁹George Grinnell, *Trails of the Pathfinders*, Scribner's, New York, 1911, 283-84
- ⁶⁰Charles Richard Tuttle, *History of the Border Wars of Two Centuries: Embracing A Narrative of the Wars With the Indians From 1750 to 1874*, C. A. Wall & Co., Chicago, 1874, p. 336
- ⁶¹Unknown, *A Short History and Description of the Ojibbeway Indians Now On A Visit To England*, London, 1844, p. 6
- ⁶²Littell's Living Age, Vol. 1, E. Littell & Co., Boston, 1845
- ⁶³George Catlin, *Adventures of the Ojibbeway and Ioway Indians In England, France and Belgium*, vol. II, published by the author, London, 1852.
- ⁶⁴Rejecting a white flag of truce, American militiamen indiscriminately massacred hundreds of men, women and children as defenseless swimmers attempted to swim across the Mississippi, which ran red with their blood.
- ⁶⁵Thomas L. McKenney, *History of the Indian Tribes*, vol. 1, D. Rice & Co., Philadelphia, 1872, p. 435
- ⁶⁶Wisconsin Natural History Society, *The Wisconsin Archeologist*, Vol. 19. N. 3, p. 123
- ⁶⁷Hayden, p. 354
- ⁶⁸David Ives Bushnell, *The Choctaw of Bayou Lacombe, St. Tammany Parish, Louisiana*, Government Printing Office, Washington, 1909, p. 20.
- ⁶⁹McKenney, p. 165
- ⁷⁰Woods, *Every Boy's Book: a complete encyclopaedia of sports and amusements*, George Routledge & Co., London, 1862, p. 83
- ⁷¹New York Athletic Club Journal, *The Voyage of the Western Bell: A Gus Sundstrom Story*, August, 1931
- ⁷²Robert Edgren, *No Training Necessary for Duke Kahanamoku, America's Swimming Ace*, The New York World, 1920
- ⁷³Crow Creek Sioux Tribe Infrastructure Development Trust Fund Act of 1995: joint hearing before the Committee on Indian Affairs, United States Senate, and the Subcommittee on Native American and Insular Affairs of the Committee on Resources, United States House of Representatives, One Hundred Fourth Congress, second session, on S. 1264 and H.R. 2512, to provide for certain benefits of the Missouri River Basin Pick-Sloan Project to the Crow Creek Sioux Tribe, April 25, 1996, Washington, DC (1996).

The Design and Culture of American Pools: Before and After Integration Became the Law of the Land

Bruce Wigo

International Swimming Hall of Fame (USA)

Abstract

The white population became culturally “aquatic” during the first half of the 20th century, when amusement park and municipal swimming pools were the epicenter of summer-time social life in virtually every town and city of American. The design and attraction of these facilities are what made swimming America’s most popular recreational activity and spawned general interest in competitive swimming. For the most part, Blacks and Hispanics were excluded from these facilities by either law or custom until the mid 1960’s. When integration became the law of the land, the facilities were, for the most part, abandoned by whites. As a result, these great pools closed. The modern equivalent to the old-time pools are the commercial water parks, which attract 80 million annual customers whose diversity reflect that of the general population. Because these parks do not have deep water or provide “learn to swim” or any competitive opportunities, there seems to now be a change in the attraction of today’s pools, compared to what it once was. Reaching this recreational aquatic community, as it once was, is the key to making minorities “culturally aquatic,” as it once was the key to attracting interest in competitive swimming with the white population. Water Parks would be an ideal strategic partner for the promotion of aquatics and water safety.

Key words: swimming, pools, pool design and design.

Participation of Black people in aquatics is minimal whereas drowning rates in US is high. Particularly, of the approximately 2,400 swimmers at a USA Swimming and US Masters National Championships, there were less than 10 Black participants. These “minority” participation levels were not significantly different at the national championships of diving, synchro or water polo. In addition, the drowning rate for minorities is at least 2.5 times higher than that of Caucasians. Moreover, drowning is the second leading cause of accidental death for children 7 and under in the USA. This short article aims to briefly overview the design and culture of American pools, before and after integration became the law of the land.

Reasons behind Minimum Aquatic Representation of Minority Groups

Consideration of all the above raises a question; “Why haven’t the aquatic sports been able to attract minority participation?” The answer may be found in the complexity of America’s racial/cultural history. The fact is that prior to the 1890’s very few American’s swam, black or white. It was when America’s great middle class attained prosperity and leisure time that swimming gained popularity at seaside resorts like Atlantic City, Coney Island and Revere Beach. The popularity of beach swimming led to a boon in swimming pool construction, first at America’s great Victorian era amusement parks. This led to a demand for municipal pools and starting around 1910 pools became the iconic municipal public building of every city and town with a population of 1,500 or more. Many of these pools, both public and private were enormous. One of the most spectacular was the White City Amusement Park’s Broad Ripple Pool in Indianapolis, Indiana. Built in 1908, the Broad Ripple Pool measured 450 feet by 205 feet. It went from zero dept to 12 feet, included giant slides, diving boards and platforms, picnic areas and was the kind of place

where families spent the entire summer, from dawn 'till dark, and learned to love swimming. It was also a venue that attracted thousands of spectators for Olympic Trials and National Championship competitions, hosting US Olympic Trials in 1924 and 1952. These pools attracted millions of annual patrons and by the 1940's swimming had become America's most popular recreational activity.

The Popularity of Swimming Transforms Swimmers to Film Stars

Coincident with the popularity of recreational swimming was the popularity of competitive swimming. Competitive swimmers were sought after performers at America's great pools and they, in turn, inspired general interest in competitive aquatics and made swimmers national celebrities. This explains why the women's 1932 Olympic Trials attracted 55,000 spectators each day of competition at Jones Beach, NY; why the Billy Rose Aquacade was the most popular attraction at New York's 1939 World's Fair; and, why swimmers like Duke Kahanamoku, Johnny Weissmuller, Buster Crabbe, Eleanor Holm and Esther Williams rose to international celebrity status.

The golden era of swimming came to an end in the early 1960's. As chronicled in Jeff Wiltse's "*Contested Waters: A Social History of Swimming Pools in America*", the demise of America's great pools was fueled by the Civil Rights era and integration. In looking back at the thousands of photographs of the great swimming pools of America, prior to 1960, not one black face is seen. In Fort Lauderdale, for example, no Black ever swam in the Casino Pool or from Ft. Lauderdale's magnificent beaches. Whether it was by Jim Crow laws or cultural understandings, race mixing was not acceptable and once the law of the land mandated it, the white population stopped patronizing the pools. In the south, many municipalities simply closed the pools down rather than accept racially mixed swimming. Coincident with the Civil Rights era were the phenomena of white flight to the suburbs, air conditioning and the affordability of backyard pools. As whites abandoned the newly integrated public pools and as a day at the beach or pool was not part of the "American Experience" for Blacks, historic competitive venues, like Broad Ripple and Fleishhakker in San Francisco, closed down. Whether intentionally exclusionary or not, pool design in the post integration era changed the idea of swimming for most Americans, from fun pools for all classes, to private "country clubs" or pools that were strictly for competition, and the swimming business moved from being a leisure and entertainment industry to a swim lesson and swimming team business. National Championships moved from giant venues that attracted thousands of spectators, to pools that could accommodate only a few hundred friends and families of participants. While some of the historic pools were ceded to black communities, they soon fell into disrepair and closed, replaced by wading pools (public urinals) or lap pools for which there was little or no historical or cultural connection or attraction for minority communities. Although Segregation officially ended over 50 years ago, the competitive aquatic sports (in addition to surfing, sailing, scuba diving, etc.) are almost as segregated as they were during Jim Crow days. Where pools once were income generators, the modern rectangular pools no longer service the whole community and in many cases have come to be viewed as a burden to tax payers (witness Mission Bay, The Woodlands, Ft. Lauderdale) and have either shut down or are being shut down in the future.

The Rise of Modern Water Parks

At the same time, there is a thirst for aquatic recreation as witnessed by the booming Water Park industry. In Dallas, Texas, for example, while there were once 60 public swimming pools, there are now four, the others having been replaced by "Splash parks." These splash parks are not only inexpensive to build and operate, but they are more popular with the public they serve. Cities are also noticing the great popularity of water

parks, which attract eighty (80) million annual visitors who love to have fun in the water, albeit, without swimming. According to Rick Root, CEO of the World Water Park Association, patrons reflect our nation's cultural diversity.

Design Differences among Old and Modern Aquatic Facilities

In many ways, the modern and profitable water park industry is the heir of the old time amusement park swimming pool, with one major exception – there is no deep water or opportunity for patrons to swim and there is no connection to learn to swim programs or competitive swimming. For the modern water park, deep water is a liability, so the need to swim has been engineered out of them. Modern competitive swimming and diving was built upon the foundation of the old-time pools that attracted millions of families to the water. Once at the pool, kids could play and learn to swim and learn to love the water. While at the pool, they had the opportunity to see exhibitions by the great competitive swimmers and divers, to take swim lessons and to race and compete for fun. While the great mass of patrons got to see the great swimmers and divers and appreciate their achievements as spectators, a few loved swimming so much they joined a team and went on to Olympic glory.

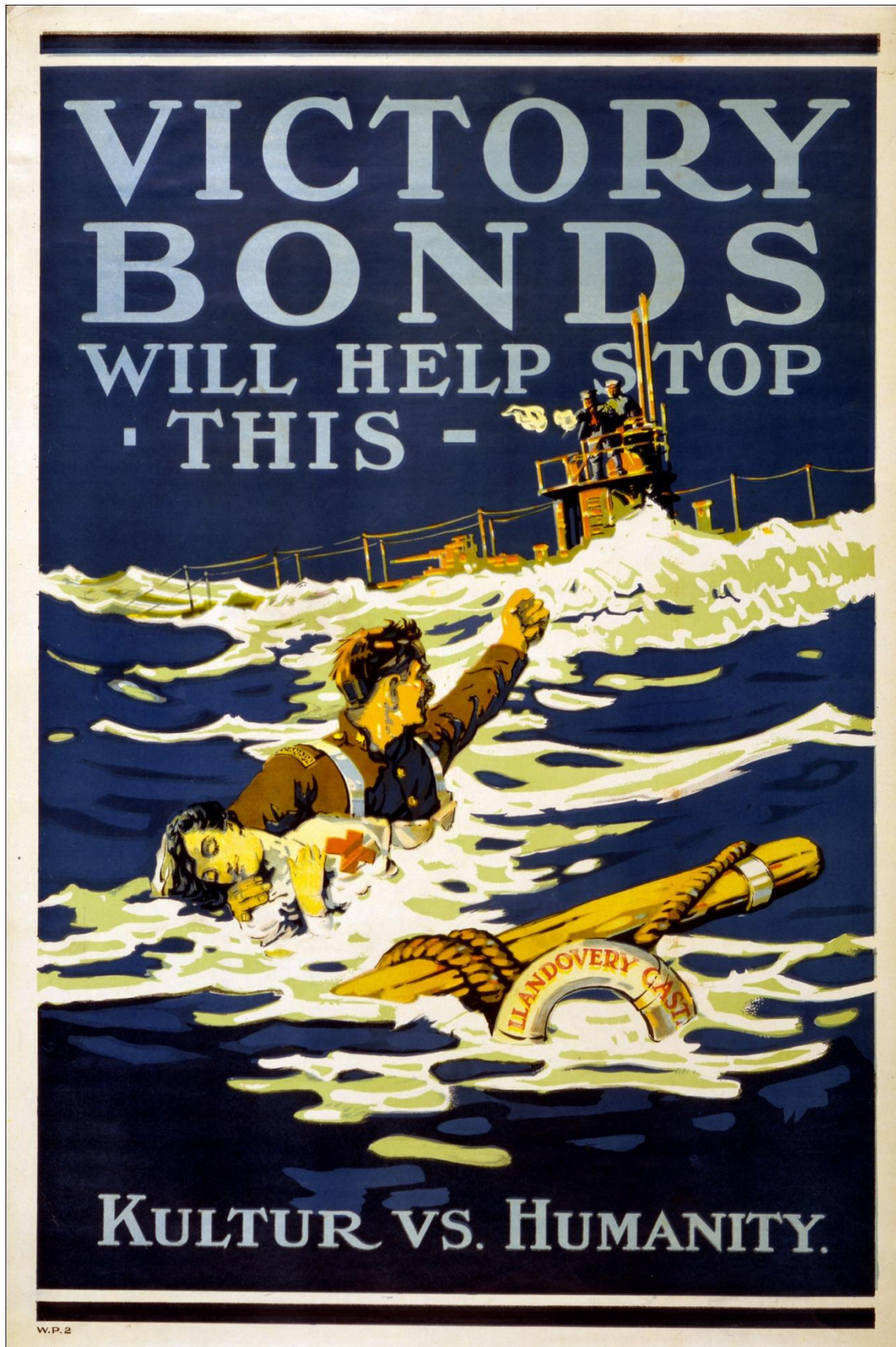
Consequences of the Decreasing Interesting in Aquatics

Today, competitive swimming has lost the opportunity to attract swimmers from among the millions of recreational tourists who visit America's water parks. Water parks have also lost this connection and society and the water parks are paying the price in lost lives. Minorities drown at least a 2.5 times greater level than whites and drowning remains a major concern at water parks, even though most have water no deeper than 3 feet in depth.

Summary

In summary, this review article came into four conclusions. First, it was found that we will not see significant numbers of minority participation by following the same path as we have the past 40 years. Secondly, minorities will not become "culturally aquatic" without the building of competitive/recreational venues that attracts significant numbers of minorities to the water (i.e., family friendly facilities with accessibility to minorities). Thirdly, water parks may be ideal partners to reach the minority community for learn to swim and drowning awareness programs. Finally, if we are serious about attracting minorities to swimming, particularly Blacks, Hispanics and Native populations family friendly aquatic facilities following principals of pre-1950 era pools should be built.

BOOK PRESENTATIONS

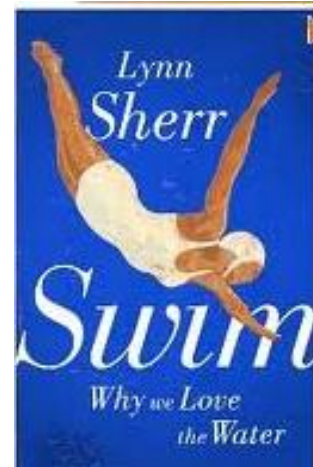


Swim: Why we Love the Water (2012)

Lynn Sherr

ABC News (USA)

Synopsis: Swimming is magical, a bold excursion into an alien element that both exhilarates and calms. To enter the water—whether the blue box of a pool or the untamed currents of the sea—is to see the world through a film of rippling waves. This is the universe that award-winning journalist and lifelong swimmer Lynn Sherr explores in this elegant and witty exploration of the joy of swimming: its lure, its lore, its timeless enchantment. *SWIM* celebrates every aspect of this ancient activity which has captivated swimmers from Julius Caesar to Benjamin Franklin to Michael Phelps, from Neptune to Nemo and the exquisite artistry of Esther Williams. Sherr recounts the history of the strokes and the secret of buoyancy; the romance of swimming in love and war; and how it has evolved into today's third most popular sports activity in the country.



The appeal of swimming is otherworldly. Sherr writes: “At one level, it’s purely sensual: the silky feeling of liquid on skin; the chance to float free, as close to flying as I’ll ever get; the opportunity to reach, if not for the stars, at least for the starfish. Swimming stretches my body beyond its earthly limits, helping to soothe every ache and caress every muscle.

But it’s also an inward journey, a time of quiet contemplation, when, encased in an element at once hostile and familiar, I find myself at peace, able—and eager—to flex my mind, imagine new possibilities, to work things out without the startling interruptions of human voice or modern life. The silence is stunning.” Sherr also reveals the daring, personal challenge she took on as part of her research: swimming the wild waters of the Hellespont—the iconic strait separating Europe from Asia made famous by the Greek myth of Hero and Leander and elevated to an athletic milestone by Lord Byron in 1810. What is its hold on swimmers around the globe? Could she, too, swim the Hellespont? Sherr weaves her adventurous tale around the history and science of the sport.

While much has been written about other sports, *SWIM* is the first new book to juxtapose its legendary roots with the cutting-edge science propelling modern Olympians across the pool; to inquire into the effect it has on our lives and why we do it; to examine how swimming is becoming more social than solitary today. And to analyze mounting medical evidence that the fountain of youth may well be filled with chlorinated water. From bloomers to bikinis to the saucy songs that salute it, *SWIM* is a paean to all things aquatic.

Fighting the Current: The Rise of American Women's Swimming, 1870-1926 (2011)

Lisa Bier

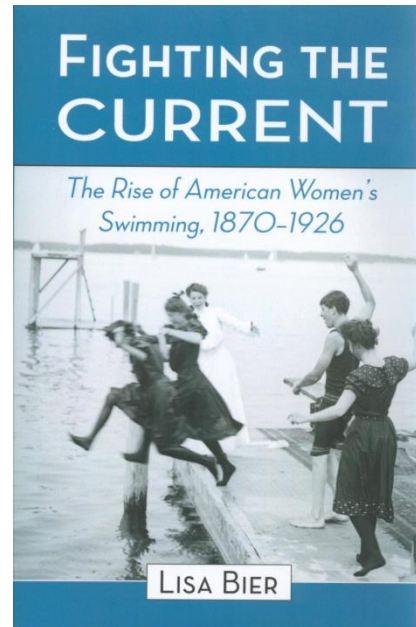
Southern Connecticut State University (USA)

Synopsis: In 1926, Gertrude Ederle became the first female to swim the English Channel--and broke the existing record time in doing so. Although today she is considered a pioneer in women's swimming, women were swimming competitively 50 years earlier. This historical book details the early period of women's competitive swimming in the United States, from its beginnings in the nineteenth century through Ederle's astonishing accomplishment. Women and girls faced many obstacles to safe swimming opportunities, including restrictive beliefs about physical abilities, access to safe and clean water, bathing suits that impeded movement and became heavy in water, and opposition from official sporting organizations. The stories of these early swimmers plainly show how far female athletes have come.

Paperback review: A riveting tale of American women fighting to secure their rightful lane in the swimming pool! In an era when girls' and women's participation in competitive sports is part of both an American and international athletic landscape it might be hard to imagine that a short one hundred twelve years ago these same girls and women were prevented from Olympic competition with their increasing presence in the games contested for much of the last century. Bier's book, *Fighting the Current*, highlights the impact women swimmers had on women's athletic participation between the late 1800's and early 1900's. Her socio-historical treatment of this era reads like watching an engaging documentary. Her writing is creative yet descriptive enough for your minds' eye to envision what the sport of swimming was like for these early American swimmers. Using historical records and amazing photos Bier takes the reader into the world of swimming in the latter half of the 19th century - a time when pools were scarce and clean water perhaps more so! She describes the waste along America's shores, particularly in its cities, and the general environmental degradation of the coasts. Indeed early swimmers played an important role in the environmental movement to clean and protect our oceans and harbors as the desire to swim spread up and down the coast. Their work also resulted in local investments in year round swimming pools with safe, clean water.

Cultural norms presented an enormous challenge to girls and women interested in both recreational and competitive swimming. Modesty laws restricted women's choice of bathing attire with dire consequences as women and their children were constantly drowning due to the weight of women's clothes and their inability to swim. Bier documents how a national learn-to-swim movement gripped the entire country putting women in pools and eventually removing the cumbersome and restrictive clothing from women's wardrobes. As a result, accidental drowning of women and children fell.

Perhaps most engaging is Bier's thrilling account of women's swimming competition. The "amateur movement" of the 1880's differentiated between the financially compensated, and often working class, competitor and those who participated for the love of sport and personal reward of the win (i.e. primarily upper class college men). The patriarchal structure of amateur athletics prevented women's participation in



recognized national and international amateur competition and so they were able, for a while, to engage in a gamut of sport competitions including those with monetary rewards. Thus, women swam in competitions and for work (e.g. entertainment shows) as they liked until they too joined the amateur ranks in 1914. They did so only after climbing inordinate institutional barriers and battling patriarchs like James E. Sullivan, head of the Amateur Athletic Union (AAU), in that time.

The greatest reward in this book comes from reading the gripping stories of the women athletes who battled their communities and sometimes families to swim competitively. These chronicles of numerous swimmers (e.g. Kate Bennett, Katie Allen, Ethel and Elaine Golding, Florence West, Annette Kellerman, Augusta Gallop, Clara Hurst, Adeline Trapp, Elaine Golding, Rose Pitonof, Katherine Mehrtens, Charlotte Epstein, Charlotte Boyle, Aileen Riggan, Helen Wainwright, Helen Meany, and Gertrude Ederle) lives as athletes, competitors, and/or swim league instructors and administrators, are truly compelling in their own right. It is with lively story telling that Bier propels the role of the individual athletes to the center of the account of how women came to be liberated to swim safely and competitively in the United States and internationally. These tales build up to the triumphant English Channel crossing by Gertrude Ederle in 1926. Ederle was the first woman to accomplish this feat and she did so in record breaking time! With enough plot twists and turns for a mystery novel, Bier documents women as true competitors and athletes.

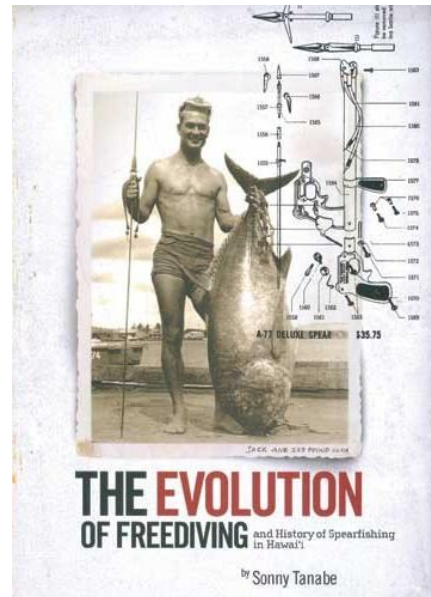
This book makes for an excellent read for sociologists and historians of sport as well as women's studies. It could be used in a classroom or simply as a fun read. A great gift for your swimmer friends and relatives as well!

The Evolution of Freediving (2012)

Sonny Tanabe

Hawaii Swimming Hall of Fame; Hawaii Freediving & Spearfishing Wall of Fame (USA)

In his second book, *The Evolution of Free diving*, Olympic swimmer and legendary free diver Sonny Tanabe has created a definitive text for the sport. Fueled by a lifelong love affair with the ocean, this compilation of stunning photography, historic lore and modern information is sure to fascinate. With passionate detail, *The Evolution of Free diving* presents the art of apnea and spear fishing in concise and intriguing fashion. This book traces both the advances in dive equipment as well as the progression of the spear fisherman—from explorer to hunter to the current evolution as steward of the sea.



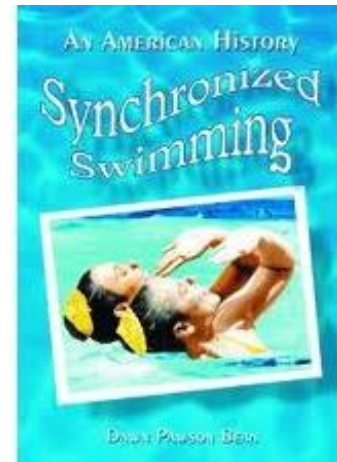
Synchronized Swimming: An American History (2005)

Dawn Pawson Bean

United States Synchronized Swimming; Synchro Magazine (USA)

From its humble beginnings as novelty tricks in swim classes, through the popularity of the large Aquacades and Esther Williams' movies, to what has become the highly complex sport of today - this history of synchronized swimming tells how the sport grew and evolved; the role the United States has played in its worldwide development and describes the status of synchronized swimming in world sporting events today.

Among the topics covered are competition development, the rise and fall of clubs and regions in national competition, the role the United States played in the worldwide acceptance of the sport, the introduction of international competition and how it has grown, the rules and technical changes, and the leadership structure in the U.S., from volunteers to a National Office. Four appendices list the major U.S. award winners, winners of U.S. national championships, the results of major international competitions and U.S. participation in international events. Photographs date from the beginning of the sport in the U.S. with Annette Kellerman, Busby Berkeley, Esther Williams to the World Championships of 2003.

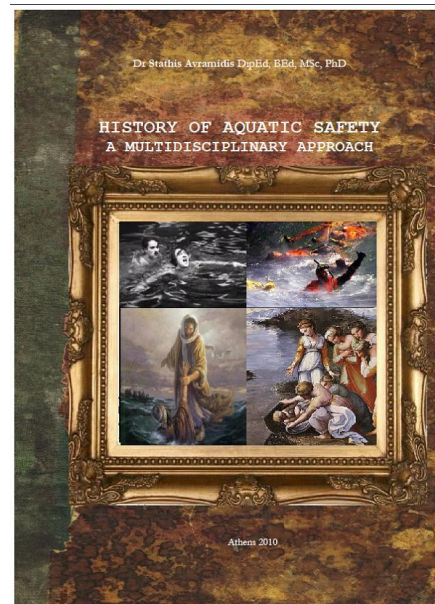


The History of Aquatic Safety (2010)

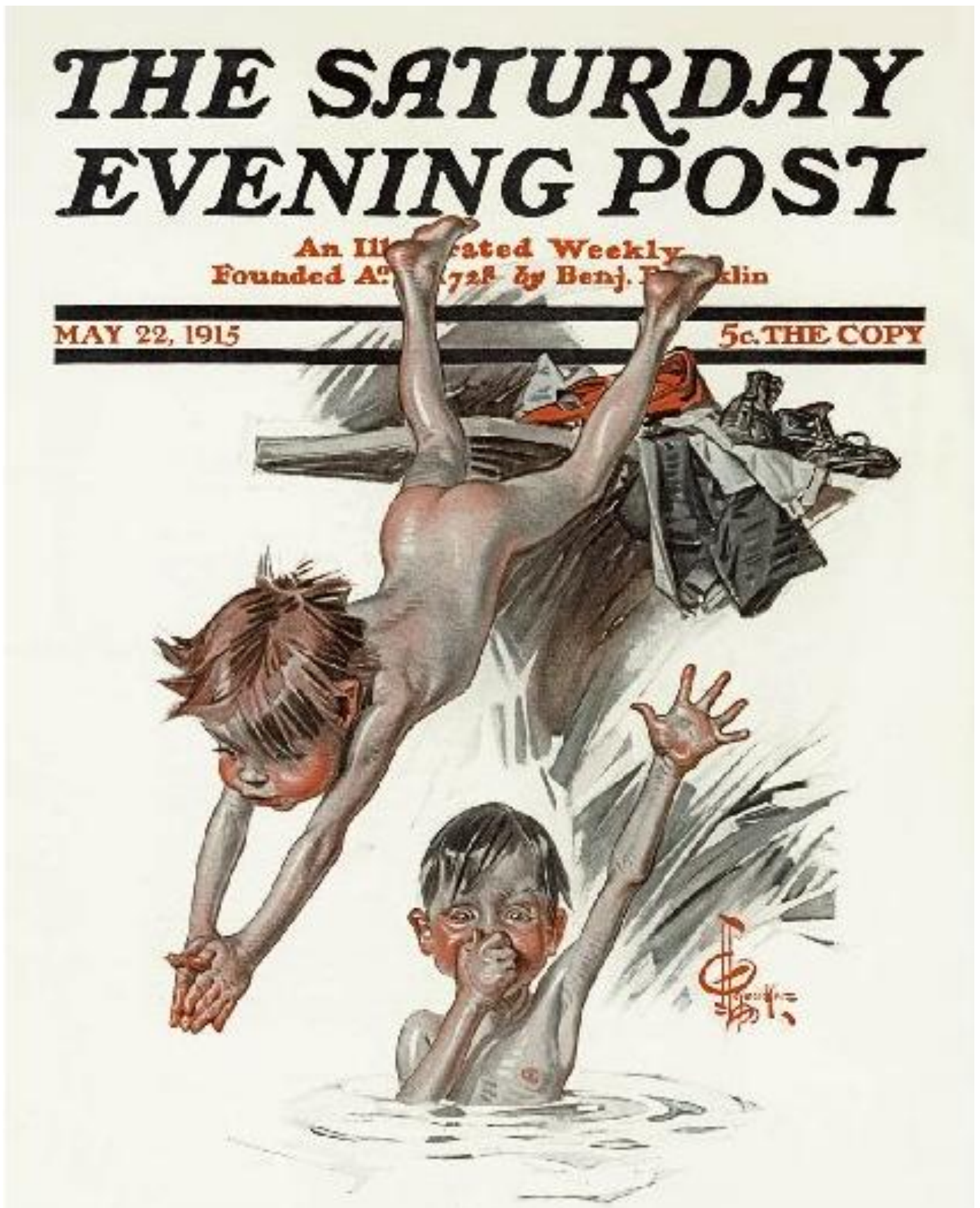
Stathis Avramidis

Hellenic Centre for Disease Control and Prevention (Greece); Leeds Metropolitan University (UK); The Lifesaving Foundation (Ireland).

Synopsis: The “*History of Aquatic Safety: A Multidisciplinary Approach*” has a unique aim: to review drowning incidents and aquatic rescues reported in the literature that so far has not been explored widely. In its seven chapters it overviews Hollywood film stars who have been involved in aquatics as lifesavers, rescuers, athletes and drowning victims, Hollywood films that contain drowning or rescue scenes, Biblical, ancient and mythological references to drowning and rescues, the history of resuscitation, the world history of swimming and the world history of drowning. This fully referenced and illustrated rare book will intrigue the most demanding aquatic fans and offer an enjoyable and entertaining read about the spectacular world of water safety and aquatics.



ABSTRACT PRESENTATIONS



Prints, Postcards, Posters, Photos, Pins and Patches: Collecting Swimming and other Aquatic Related Memorabilia

Charles R. (Chuck) Kroll

Vintage Aquatic Design©/Antique Aquatic Americana Collection© (USA)

Introduction: I began collecting in order to “help” illustrate a book I had begun researching on the history of lifeguarding and lifesaving in USA, circa fall of 1988. Immediate questions posed were what materials might be available and how and where would one go about finding such. **Method:** Research began at the City of Seattle Parks and Recreation Archives and at the local Museum of History and Industry and continues today using many avenues and resources. The search for items relating to lifeguarding and lifesaving began in local antique shops and used bookstores. This led to antique malls and regional shows and in ensuing travels, more stores, etc. In the early ‘90s a good Trader Magazine and another newspaper were discovered. By the end of the 90’s-early 00’s on-line had begun its hold upon me (e.g. an Amazon clean out of rare books, E-bay etc.). **Results:** Collecting Lifeguarding and lifesaving related materials led to discovering memorabilia relating to swimming, the beach, swimming pools, bathing/swim suits, competitive aquatic sports, water shows, swimming instruction, historical figures, water fitness, entertainment, etc. Unique aspects of the collection include over one hundred fifty 19th Century prints, over 4000 postcards and a library of over 1400 volumes dating to the early 1700’s, plus more than 500 Suntan/Sunburn items 1880s-present. **Discussion:** My ‘Antique Aquatic Americana Collection’ consists of over 15,000 items. In my presentation, I will explain how to take this collection to the market, I will make the 2-3+ Million Dollar Question and the 75+ Million Dollar Question. **Conclusion:** Over the years collection has helped illustrate three aquatic related books. In addition I have also written numerous book reviews and illustrated and/or written other related articles for numerous aquatic magazines. The “Antique Aquatic Americana Collection” has been featured in eight solo exhibits and contributed to three others since 1990. Collecting opportunities have led to one national magazine article, four local/regional newspaper articles and one local and one national television appearances. It is planned to expand efforts as it relates to the publishing and exhibiting of the collection.

A Historical Review of Synchronized Swimming and the Development of the Sport in Greece

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Introduction: The purpose of this study was to review and document the development of Synchronized Swimming in Greece. Synchronized swimming is one of the most recent sports in aquatics (Bante, 2005). The etymology of the word “synchro” comes from “synchronize” meaning the “synchronization with the music”, including the movement in and under water with one or more athletes together (Chairopoulou, 2010). Synchro was first developed by Annette Kellerman in the U.S. during the early 1900s (Weinberg, 1986). Primarily it was called “ornamental swimming” and was made famous by the movies of Esther Williams (Mountjoy, 1999). In 1982, the program “Classical Splash” was started which was a demonstration to raise funds to support the national U.S. team. **Method:** The present study is a literature review. Synchronized Swimming is becoming more and more popular around the world, including Greece. Synchronized swimming in Greece started only in recent years, and that is perhaps the reason for the scarce research concerning this sport in Greece. The interest of the researchers usually deals with the psychological (Domali, et al., 2009); the physiological (Bante, et al. 2005); the coaching and nutrition (Douka, et al, 2008); and the parameters for maximizing synchro performance. The present study is designed to collect data from synchronized swimming competitions from their beginning to the present, in order to evaluate the development of this sport in Greece. **Results:** The sport of synchronized swimming in Greece started to be developed in the late 80’s. In 1988, the Greek National Swimming Federation attempted to gather athletes from four different Greek provinces (Volos, Crete, Thessaloniki and Athens), and the first National team was created. In 1990 the first National synchronized swimming competition took place in Athens in only one category (Open). In 1993, the Swimming Federation of Greece started a program for the development of synchronized swimming including many activities. In 1996, the Greek synchronized swimming team participated in the Olympic Games in Atlanta. In 1996, the “Athens Sychro” a well recognized Greek International event was established. In 1999, in the European competition in Istanbul, Greece takes a 5th place. During the 2000 Olympic Games in Sidney, the Greek duet takes 12th place. **Discussion:** Since the Athens Olympic Games of 2004, the sport of Synchronized swimming became more popular. **Conclusion:** Through the years, Synchronized Swimming has demonstrated an increasing development in Greece, resulting in the formation of a very competitive team. The athletes are working hard for National, International, and European competitions, and for the Olympic Games in London 2012.

References

- Bante, S. (2005). *Cardiorespiratory and metabolic responses to a simulated Synchronized Swimming routine in national level athletes of Synchronized swimming*. Unpublished Master Dissertation. Department of Physical Education and Sports Sciences, University of Athens, Greece.
- Bante, S. Bogdanis, G.C. Chairopoulou C., & Maridaki M. (2007). Cardiorespiratory and metabolic responses to a simulated synchronized swimming routine in senior (>18y) and comen (13-15 y) national level athletes. *Journal of Sports Medicine and Physical Fitness*, 47(3), 291-299.
- Chairopoulou, C. (2010). *Coaching of Synchronized Swimming*. Athens, Greece: Telethrion.
- Douka, A., Skordilis, E., Koutsouki, D., & Theodorakis, Y. (2008). Prevalence of Eating Disorders among elite Female Athletes in Aquatic Sports. *Inquiries in Sport & Physical Education*, 6 (1), 87-96.
- Mountjoy, M. (1999). The basics of synchronized swimming and its injuries. *Clinics in Sports Medicine*, 18(2), 321-336.
- Ntomali, S., Psychountaki, M., Kaloupsis, S., & Chairopoulou, C. (2009). Athletes’ Goal Orientation and Preferred Coach’s Leadership Behavior: A Pilot Study on Synchronized Swimming. *Inquiries in Sport & Physical Education*, 7 (3), 355-365.
- Weinberg, S. (1986). Medical aspects of synchronized swimming. *Clinics in Sports Medicine*, 5, 159-167.

Masters Swimming for Life - From the Beginning

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USMS History and Archives Committee (USA)

Introduction: “It must be borne in mind that the primary existence of Masters Swimming is the promotion of physical fitness and, through the medium of physical fitness, better health for those who participate. The competitive aspects of Masters Swimming, although essential to the program, are held to be secondary in purpose and mainly to furnish the motivational spur necessary for continued swimming on a daily basis over the entire adult lifespan” (Krauser, 1984). Before 1970, many believed that strenuous physical activities by people older than 25 could cause serious bodily harm. Research by Captain Ransom J. Arthur M.D., USN, Navy Medical Neuropsychiatric Research Unit Commanding Officer, San Diego, California, disproved this theory. Due to Arthur’s research, dedication and promotion of swimming for older adults, Masters swimming was formed and continues to grow. **Method:** Historical Masters swimming documents, newsletters, personal letters, research papers and other literature were used in writing this abstract. **Results:** Captain Ransom J. Arthur showed an increase in fitness levels of individuals who took part in an aquatic training program (Ransom, 1968). He convinced the Amateur Athletic Union (AAU) that swimming improved adult physical health and that Masters Swimming should become an official AAU program. **Discussion:** During 1968-1969, Ransom Arthur convinced John Spannuth (Spannuth, 2012; Cassel Research Centre, 2012), AAU National Aquatic Administrator and World Swimming Coaches Clinic founder to direct the first Masters Swimming Championships for adults, 25 years and older, in Amarillo, Texas on May 2, 1970 (Anderson, 1974). Masters Swimming officially started on that day. Arthur received Navy funding to perform research tests on the participants. The research results showed that swimming improved health. Competition was a measure of individual fitness levels and a motivational tool. Through Arthur's encouragement, regional meets took place in 1971. Masters swimming became an official part of the AAU in October 1971. The Sports Act of 1978, allowed the formation in 1979 of the Masters Swimming Committee of the AAU, Inc. Full voting membership in United States Aquatic Sports, Inc. (USAS) was granted following the October 1980 USAS convention in Snowbird, Utah. With Ted Haartz as Chairman, Masters Swimming received 501(c)(3) exemption with the IRS (Haartz, 1981) on February 26, 1981. On April 23, 1981, the name was changed to United States Masters Swimming, Inc. **Conclusion:** Because of Ransom Arthur's research, dedication, and promotion, the United States Masters Swimming program has grown to its present level today.

References

- Anderson, H.H. (1974, August). History of Masters Swimming. *Swim-Master*. 3(6), 1.
- Arthur, R.J. (1968). *Swimming and Cardiovascular Fitness in the Older Age Group and Swim Training in the Older Age Group*. Washington, DC, USA: Navy Medical Neuropsychiatric Research Unit, CA Bureau of Medicine and Surgery Department of the Navy.
- Cassel Research Centre (2012). Aquatic Pioneer Receives USSA Distinguished Service Award (2006). Retrieved on 10 January 2012 from <http://www.cassel.edu.au/download/float1.pdf>
- Haartz, T. (1981, May). United States Masters Swimming. *Swim-Master*, 10(4), 1-2.
- Krauser, J. (1984, September). Up Date: Masters Swimming – Lifetime Vigorous Swimming for Health, Fun and Sport. *Swim-Master - Special Convention Publication*, 1-3.
- Spannuth J.R. (2012). *Bio*; United States Water Fitness Association (USWFA). Retrieved on 10 January 2012 from <http://www.uswfa.com/uswfainfo.asp>

A Historical Overview of Aquatic Therapeutic Uses in the Western Civilizations

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Introduction: The use of water as a medical treatment, and as an alternative supplementary means of rehabilitation, is as old as mankind (Bender et al., 2004). The aim of this article is to provide a historical overview of aquatic therapy in various periods of history. **Method:** Using the key words 'aquatic therapy', 'spa', 'whirlpool', 'balneotherapy' and 'rehabilitation', in academic databases (i.e., Sport Discus and Medline) and libraries, we identified a number of journal articles and books (n=24). In terms of a time frame, our search covered the evolution of aquatic therapy since antiquity until today (see Sprawson, 1992; Maggioros, 2009). **Discussion:** We identified a remarkable evidence of aquatic therapy methods in various periods of history. *Ancient Greek Period (460 – 370 B.C.):* In Homeric times baths served mainly as washing facilities (e.g., Sorceress Circe offered to Odysseus a bath as a friendly gesture to honor her visitor), whereas in Hippocrates times, hydrotherapy flourished as a helpful means of healing. *Roman Period:* The therapeutic use of baths continued to be popular during the Roman imperial period because it was freely available and the baths were considered as a pleasant destination. *Byzantium-Middle Ages:* This period, the use of hydrotherapy declined because of religious moral oppositions. During the 17-18th centuries an organized and scientific approach was commenced to identify the chemical components that make some aquatic areas more beneficial than others. *Nineteenth- Twentieth Century:* The scientific interest of the previous period continues. The water temperature and its chemical metals emerge as important variables. It is revealed that therapeutic whirlpools, provide various therapeutic benefits (e.g., arthritis, cardiological problems etc.) depending on their different components. *Contemporary Period (21st century -today):* The use of water as means of therapy, rehabilitation and recreation is popular internationally. Today, the focus has turned from the temperature and the chemical composition to the other qualities of water (e.g., buoyancy, turbulence, resistance movement, hydrostatic pressure etc.), as well as its microbiological quality, simulating the natural environment with therapeutic opportunities in indoor and outdoor settings (Bender, Balint & Balint, 2002). **Summary:** Water was a popular means in classical medicine. There was a conscious appreciation of the advantages of mineral and thermal springs on people's health. Spas attracted people who swam or stood immersed to treat various diseases. Water was and is still used as a source of pleasure, recreation, maintenance and promotion of body/mental health (Jackson, 1990).

References

- Bender, T., Balint, P.V., & Balint, G.P. (2002). A brief history of spa therapy. *Annals of the Rheumatic Diseases*, 61, 949-950. doi:10.1136/ard.61.10.949
- Bender, T., Karagulle, Z., Balint, G.P., Gutenbrunner, C., Balint, P.V., & Sukenin, S. (2004). Hydrotherapy, balneotherapy, and spa treatment in pain management. *Rheumatology International*, 10.1007/s00296-004-0487-4.
- Maggioros, D.P. (2009). Acupuncture and other methods of selftreatment. Athens, Greece: Author.
- Jackson, R. (1990). Water and spas in the classical world. *Medical History*, 10, 1-13.
- Sprawson, C. (1992). Haunts of the Black Masseuse: The Swimmer as Hero. Minnesota, USA: University Of Minnesota Press.

Hollywood Films: Truths and Myths in relation to Drowning and Lifesaving

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Introduction: Drowning and water rescue have been the subject of only limited focus in cinematography. The purpose of this study is to identify a number of films, and to establish where they correspond to or contradict the contemporary facts about drowning and rescue. **Method:** A combination of a criterion based and convenience sampling method identified films that depicted drowning incidents, and/or water rescues (n=309). The frequency of the variables that were related to the drowning episode (i.e., the rescuer, the casualty, the place and the circumstances of occurrence) were recorded. “Truth” was defined as everything that was depicted in the films which corresponded with reality. “Myth” was defined as everything that was depicted in the films which contradicts reality. **Results:** This study identified several Hollywood “truths” and “myths” in relation to what happens in reality (Table 1). **Summary:** Hollywood contains a wealth of motion pictures that contain drowning and water rescues. Most of them deliver messages that correspond well with reality. In addition to these findings, it was observed that the average drowning scene lasted about 37 seconds. Dramas, thrillers, horror and cartoon films portray most drowning episodes in cinematography. The rescue methods least recommended by lifesaving organizations, i.e. the direct body contact tow, is used most frequently.

Truths: ■In the films, most drowning episodes take place in unguarded areas and therefore the rescuer (if any) will be an amateur. ■Rescuers, most often, are adult males. ■People often attempt a rescue fully clothed. ■The rescuers’ body type varies. Myths: ■The rescuers attempted often early approaches to the victims (i.e. when they were still conscious).	Rescuer
Truths: ■Drowning victims can be non-, weak-, injured-, or unconscious swimmers or there can be multiple victims. One quarter of them was swimmers. ■Most victims fell in the water unintentionally and fully clothed. ■8Non-swimmers do not necessarily shout for help. ■Most often victims drown on their own rather than in groups, except in natural disasters or shipwrecks. ■Non-swimmers appear to have the universal instinctive drowning response. ■Non locals are more likely to drown than locals. ■ The victims’ body type varies. Myths: ■The male: female drowning victim ratio is 2:1. ■Drowning victims are most often white adults.	Casualty
Truths: ■Most often the water temperature is normal (i.e. not hypothermic). ■One quarter of drownings take place in water depths of 1m or less. ■Most people drown in open water. ■People drown in all types of aquatic environments. ■A significant proportion of drowning takes place within 2 m from safety. Myths: ■Drowning occurs mostly in water with waves or currents.	Place of occurrence
Truths: ■Rescuers are also in risk of drowning. ■Most people drown in daytime. ■Various types of human activity in or around the water lead to drowning. ■Most of those that drowned while engaged in an aquatic activity were not wearing a lifejacket. ■One tenth of those that drowned took unnecessary risks around the water. ■Drowning peaks in warmer seasons. ■Some drowning incidents involved paranormal events or near-death experiences. Myths: ■Slightly more survive drowning than those that die. ■Alcohol and drug consumption is a very minor contributing factor of drowning.	Circumstances of occurrence

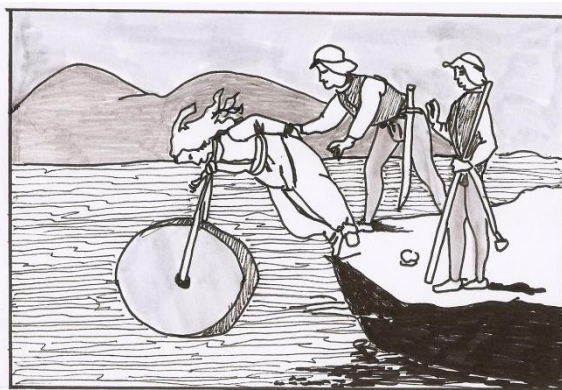
Table 1: Hollywood films’ truths and myths about drowning.

Aquatic and Lifesaving Related Messages that Arise from Art

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Introduction: The aspects of drowning and water rescue have been the subject of recent but limited research as stressed in art. This study aims to overview a number of aquatic and lifesaving related messages that arise while reviewing various paintings. **Method:** A combination of a criterion and convenient sampling method, identified paintings that depicted aquatic activities (e.g., swimming, boating, diving etc) and drowning incidents with/without a rescue attempt (n=837). **Results:** The sampled paintings depicted animals (15, 2%) and humans (205, 24.49%) attempting to save drowning victims. Some other drowning episodes were caused from flooding (44, 5.25%), whereas others took place during military situations (43, 5.13%). Drowning was depicted in posters and news papers as a propaganda material (22, 2.63%). Other paintings were inspired by drowning and rescues with a religious theme (131, 15.65%). Some of the causes of drowning were suicide (23, 4.33%) where others were homicide or martyrdom (48, 5.73%). Finally, it was found that art was extensively inspired by swimming (172, 20.54%) and shipwreck (134, 16%) depictions. **Discussion:** The vast majority of those paintings depicted adults. When children were portrayed, this was when they played around the water or drowned and had to be saved either by adults or animals. The most common types of rescue were the reach-, wade- and body contact tow, possibly because the artists were inspired by an actual event that took place in an era where there was limited rescue equipment; no organized lifesaving education; or an effort to express and to give a heroic dimension to a fictional event. The fact that almost all drowning victims were fully clothed indicates that they fell unintentionally into the water (e.g., accidental fall, shipwreck, combat situation etc). Almost all victims were portrayed to be non-swimmers. **Summary:** The world of aquatic art themes seem to be adult dominated. Artists have been inspired by all aspects of life (e.g., religions, military, mythology, oral and written history etc.). Aquatic and lifesaving art has impacted on humanity in the social, sport, recreational, competitive and rehabilitation aspect, but also in terms of art itself.



Figures 1-2: Pharaoh drowns all the male children of Israelis (left). Two soldiers are casting a woman with a stone wheel tied around her neck (right). Drawn by Nikos Kouremenos.

Swimming and Aquatic Scenes in Hollywood Films: A Pilot Study

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Introduction: Entertainment as depicted by Hollywood films, might affect the viewers beliefs and attitudes regarding aquatic behaviour, while engaged in swimming activities. The purpose of this study was to assess whether there are genres in the Hollywood industry containing scenes with people engaged in recreational, professional or competitive swimming activities (e.g., figure 1). **Method:** A search in the Internet Movie Database with the key word 'swimming' identified a sample of 2098 films depicting people swimming. **Results:** Swimming activities appeared in 24 out of 26 genres of the database (e.g. drama, 517, 24.64%; documentary, 64, 3.05%; action, 84, 4%; family, 90, 4.3%; thriller, 116, 5.53%; music, 39, 1.85%; western, 19, 0.9%; musical, 31, 1.5%; science fiction, 39, 1.9%; sport, 71, 3.4%; history, 28, 1.33%; news, 2, 0.1%; comedy, 229, 10.9%; animation, 59, 2.8%; romance, 252, 1.2%; crime, 79, 3.8%; adventure, 121, 5.8%; horror, 55, 2.6%; fantasy, 55, 2.6%; mystery, 61, 2.91%; war, 38, 1.8%; biography; 43, 2.05%; reality-TV, 2, 0.1%; and film-noir, 4, 0.2%). **Discussion-Conclusion:** Almost all film genres contained scenes depicting swimming as part of recreational, professional or sporting activities. One fourth of the films showed some swimming activity was dramas. This pilot study was limited in scope. Therefore it should be followed by more diverse quantitative and qualitative research in terms of how the Entertainment industry could be used to enhance swimming education.



Figure 1: Annette Kellerman (1887-1975), Australian professional swimmer and film star. Note. Available in United States Library of Congress's Prints and Photographs division under the digital ID ggbain.03569. Freely released in the public domain. Taken from Wikimedia Commons, 2011.

References

Wikimedia Commons (2011). Annette Kellerman. Retrieved on 9 August 2011 from http://commons.wikimedia.org/wiki/File:Annette_Kellerman_1.jpg?uselang=el

Drowning and Rescue Related Artwork from Swimming and Other Aquatic Activities with Religious Theme

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Introduction: Scholarly work on drowning and swimming related artwork is scarce and very recent. The aim of the present study was to identify whether there is any international artwork depictions containing drowning incidents inspired by religious events. **Method:** The terms ‘drowning’, ‘aquatic rescue’, ‘religion’, ‘art’, ‘artwork’, and ‘depiction’ were used as key words in a search that was undertaken to identify paintings and sculptures that may have a drowning related theme inspired by a religious event or narration. This search revealed 44 related artworks (Figure 1). **Results:** Results confirmed that paintings and sculptures depicted drownings caused by God (5, 11.4%); rescues initiated by God (7, 15.9%); miraculous drowning rescues initiated by Saints (17, 38.6%); martyrdom drownings and other aquatic emergencies (10, 22.72%); and drowning incidents involving deities or other religious figures (7, 15.9%). **Conclusion:** Overall, it seems that various religions around the world have inspired the artists that used narratives and sacred stories as themes in their paintings and sculptures. This wealth of art, represents an invaluable material that could possibly be used as a means for water safety research and education.



Figure 1: An Egyptian man is throwing a young Israeli boy in the water to drown whereas his mother helplessly is trying to prevent the drowning of her son. Taken from Wikimedia Commons, 2011.

References

Wikimedia Commons. (2011). The Egyptians Afflicted the Israelites. Retrieved on 9 August 2011 from http://commons.wikimedia.org/wiki/File:Foster_Bible_Pictures_0061-1_The_Egyptians_Afflicted_the_Israelites.jpg

References to Drowning Incidents and Aquatic Rescues in the Bible

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Introduction: The aim of this study was to research drowning incidents and aquatic rescues that are included in the Bible. **Method:** A criterion sampling method, based on two criteria, was followed. first, cases referring to rescue or drowning (leading to death or survival) in the Bible; and second, cases referring to rescue or drowning of humans were chosen. From a total of seven cases which referred to drowning, only six (85.71%) referred to drowning in humans, meeting both sampling criteria and these cases were eventually chosen for further research. Males (2, 33.3%), and multiple casualties (4, 67.0%) of unknown age, faced a drowning incident that either led to death or survival in the Bible. Drowning mortality rates in the Bible were computed using descriptive analysis, to appreciate the general trend of drowning in the holy book. **Results-Conclusion:** Drowning casualties were saved after an 'act of God (2, 33.3%), an 'act of human (1, 16.6%), but, more often, when a person was ordered, assisted or encouraged by God to perform an action that would save the persons in danger (3, 50%). The casualties were males (2, 33.3%) or multiple casualties (4, 67.0%). The outcome of the drowning incident was almost always survival (5, 83.3%) and, in only one case, death (1, 16.6%). Drowning incidents occurred almost always at sea (5, 83.3%) and only once (when Noah's Flood occurred; Figure 1; see Wikimedia Commons, 2011), on earth (1, 16.6%). The types of rescue that were used were reach-rescue (2, 33.3%), rescue and survival while onboard a ship or other buoyant boat (2, 33.3%), and through a divine miracle (2, 33.3%) (Avramidis, 2010).



Figure 1: The Deluge. Drawn by Michelangelo (c. 1508-1512). Available in the public domain. Taken from Wikimedia Commons, 2011.

References

- Avramidis, S. (2010). Drowning in Bible and Contemporary Society: Responsibilities of the Religious Caregivers. *Journal of Religion & Health*, 49(2), 212-220.
- Wikimedia Commons. (2011). The Deluge after restoration. Retrieved on 9 August 2011 from http://commons.wikimedia.org/wiki/File:The_Deluge_after_restoration.jpg

Martyrdom Drowning during the First Five Centuries of the Christian Orthodox Church

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Introduction: Drowning is often reported as a cause of accidental death but no research has been dedicated in identifying whether it has been used as means of martyrdom in religious narrations. The aim of the present study was to identify the martyrdom drowning incidents that are reported during the first five centuries of the operation of the Christian Orthodox church (e.g., Wikimedia Commons, 2011). **Method:** A criterion sampling method identified a number (n=44) of male (31, 70.45%), female (13, 29.55%) or multiple martyrs experienced drowning that led to death (35, 79.55%) or survival (9, 20.45%) confirming that drowning was used as a mode of martyrdom during the examined period (see Figure 1). **Results:** Their persecutors were autocrats (9, 20.45%); judges (1, 2.27%) and prefects (8, 18.18%); sovereign and kings (8, 18.18%); or even their father (1, 2.27%) because of their love to God and dedication and faith to Christianity. Their drowning martyrdom took place in various aquatic environments (e.g., sea 20, 45.45%; lake 8, 18.18%; river 9, 20.45%; well and cauldron 2, 4.55%). The criterion Pearson's chi square and a logistic regression analysis revealed that the possibility of having a death after a martyrdom drowning was 12 times higher when having multiple than single martyrs. **Conclusion:** Collectively, this study revealed that drowning has been used as means of executing religious people in the past.



Pier Leone Ghezzi, Martirio di S. Clemente, 1726, Pinacoteca Vaticana

Figure 1: The Martyrdom of Saint Clemens. Drawn by di Pier Leone Ghezzi, 1724. Available in the public domain. Taken from Wikimedia Commons, 2011.

References

Wikimedia Commons. (2011). Martyrdom of Saint Clemens. Retrieved on 9 August 2011 from http://commons.wikimedia.org/wiki/File:Martyrdom_of_Saint_Clemens.jpg

Art Depictions of Water Torture, Punishment and Homicide Drowning

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Introduction: Torture, punishment and homicide are document examples of human violence that can be implemented in or with water. This study aimed to locate water tortures, punishments and homicide drownings that served as the subject in artwork depictions and to evaluate their content (see Wikimedia Commons, 2011). **Methods:** A combination of a criterion and a convenient sampling method was used to locate paintings containing water tortures, punishments and homicide drowning episodes (see Figures 1-2). **Results:** A related search revealed 34 paintings containing water tortures (11, 32%), punishments (15, 44%) and homicide drownings (8, 24%), that involved fictional characters (28, 82%) or historical figures (6, 18%). The victims were almost always adult (33, 97%) males (14, 44%) or female (20, 56%). These incidents took place in seas (2, 6%), rivers (10, 32%), lakes (6, 18%), and domestic water (e.g. barrels, baths, etc.) or in prisons (13, 38%) almost always during the day time (28, 88%), in the presence (22, 62%) of witnesses. **Conclusion:** Collectively, this international wealth of information may be used by scholars and educators in the fields of criminology, history, art, aquatics, water safety and drowning prevention (Avramidis, 2010).

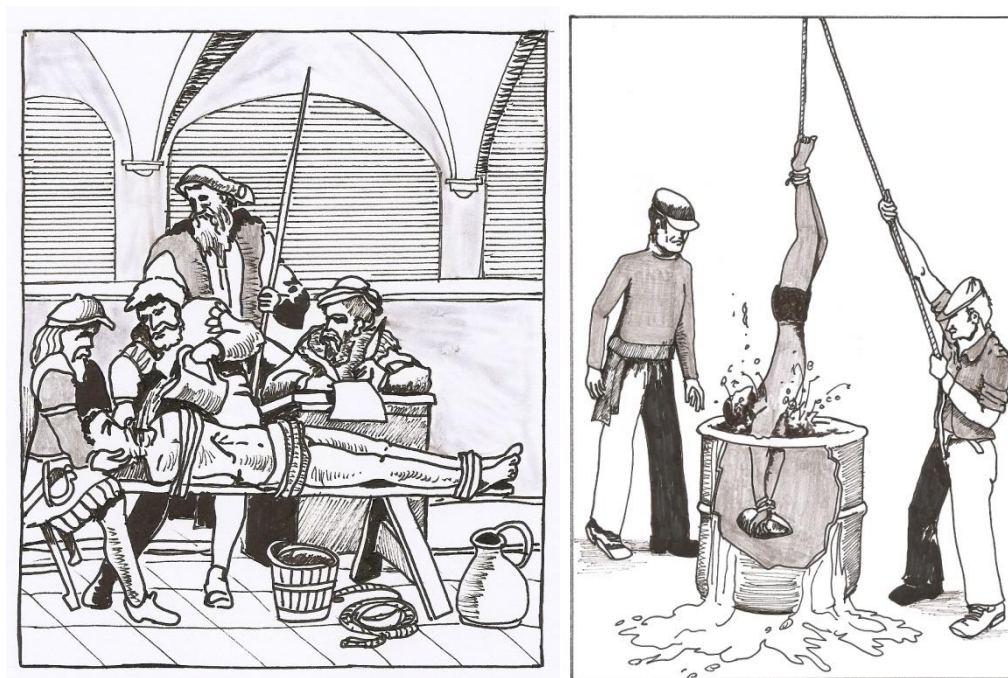


Figure 1: Water tortures. Drawn by Nikos Kouremenos based on the originals.

References

Avramidis, S. (2010). *History of Aquatic Safety – A Multidisciplinary Approach*. Athens, Greece: Author.

Suicide Drowning Episodes in Artwork Depictions

Stathis Avramidis

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Introduction: This study aimed to locate and overview suicide drownings that served as the subject in artwork depictions and to evaluate their content. **Methods:** A related search revealed 20 paintings containing suicide drownings that involved fictional, historical and mythological characters. The victims were exclusively adults. Among them, females outnumbered males (e.g., Figure 1; Wikimedia Commons, 2011). **Conclusion:** Drownings took place in seas, rivers and lakes almost always during the day time, in the presence of witnesses and as a result of love affairs, social reasons, as a means of avoiding capture in the battle field. These suicides were depicted often, but not always for the same reasons and circumstances that occur today. Thus, artwork can be used by scholars and aquatic personnel for research and education in terms of drowning prevention (Avramidis, 2010).



Figure 1: Pious Japanese devotees drown themselves in honour of their deity Amida (left). To avoid ridicule at the hands of the enemy, the Trung Sisters committed suicide by drowning themselves in the Hat River (right). Note. Drawn by Nikos Kouremenos based on the originals.

References

Avramidis, S. (2010). *History of Aquatic Safety – A Multidisciplinary Approach*. Athens, Greece: Author.

Artwork of Swimming in Various Civilizations and Periods of History

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Introduction: It has been claimed that pre-historic man came in contact with water for the first time when he was forced to swim to avoid being chased by an animal or an enemy. We can only make guesses at the truth. However, it is certain that by reviewing the literature and ancient depictions, a rich world of information is revealed. This article aims to review evidence, in the form of artwork of swimming activities in various civilizations and periods of history. **Method:** The term ‘swimming’ was used as the key word in a search that was undertaken to identify painting and other artwork that may have a swimming related theme. The search used internet search engines, swimming and water safety books with historical references. In order to obtain the most appropriate artwork, paintings selected had to meet one criterion: they had to have a swimming or an aquatic related theme. **Results:** The search located 65 paintings from various periods of history (e.g. from Paleolithic and ancient times until today) and numerous civilizations (e.g. Egypt, Greece, Persia, Italy, Spain, the United States of America, Japan and China) from the ancient times until today. **Conclusion:** To summarise, the present article show that swimming has been reported as a mode of human movement since Palaeolithic times of human history. Furthermore, it shows that it has been used as a means of exercise for good health and quality of life in some civilizations. Also the ability to swim was necessary for those who were involved in boating, and military as a means of escaping from enemies and avoiding drowning. Finally, it is clear that many artists from all around the world, have been inspired by general aquatic and more specific swimming themes of daily life, portraying ordinary people or legendary and historical figures (e.g., Figure 1) being engaged in aquatics. As a result of that, swimming coaches and teachers, sports scientists and academics, swimming athletes and their parents, have inherited an unparallel heritage of artistic wealth. This wealth, that depicts our ancestors, will always be a reminder of where we came from, and an invaluable teaching aid for public and academic aquatic, water safety and swimming education (Avramidis, 2010).



Figure 1: US President, Barack Obama, photographed by reporters, swimming in moments of leisure. Note. Drawn by Pantelis Avramidis. Taken from Avramidis, 2010.

References

Avramidis, S. (2010). *History of Aquatic Safety – A Multidisciplinary Approach*. Athens, Greece: Author.

Artwork of Drownings and Rescues in Swimming and Aquatic Emergencies

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Introduction: Drowning incidents have been researched in terms of epidemiology, medicine and lifesaving, but no research has yet approached this drownign and its rescue intervention from the perspective of art. This study aimed to identify drowning and rescue related artwork and to evaluate its content. **Method:** The terms ‘drowning’, ‘art’ and ‘painting’ were used as key words in a search that was undertaken to identify painting and other artwork that may have a drowning or water rescue theme. The search used the internet search engines ‘Google’ and ‘Wikimedia Commons’ and lifesaving books with historical references. Sixty paintings from various periods of human history were located (e.g., Figure 1). **Conclusion:** In terms of generic conclusions, results confirmed that drowning episodes and aquatic rescues have inspired many artists throughout the centuries in numerous civilisations. We cannot say precisely what were their primary motives for drawing such scenes, or judge the quality of their effort, according to standards that applied to the artwork of their period, one thing is certain: they clearly left us, the water safety professionals and academics, with an unparalleled heritage that can serve as an inspiration and starting point of reference, for water safety education. In terms of specific conclusions, rescuers were always males or animals. Females were depicted only as witnesses of young age victims. Casualties from all age groups and genders presumably drowned accidentally, as they wore clothes in all depictions. Most artwork depicted single instead of multiple victims. Drownings were depicted in various aquatic environments, but more often at sea. Various types of rescues were applied to drowning victims in the cases studied.



Figure 1: Seaman Joseph Noil received the Medal of Honor for saving a drowning USS *Ponbatan* shipmate. Available in the public domain. Taken from Wikimedia Commons, 2011.

References

Wikimedia Commons. (2011). Joseph Noil poster. Retrieved on 9 August 2011 from http://commons.wikimedia.org/wiki/File:Joseph_Noil_poster.jpg

A Global Overview of Aquatics, Swimming and Drowning Myths and Legends

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Introduction: The aim of the present study was to identify mythological and legendary stories related to drowning episodes, swimming and other aquatic activities. **Method:** The terms “art”, “painting”, “myth”, “legend”, and “aquatics” were used as key words in a search that was undertaken to identify related artwork. The search used the internet search engines machines and databases that contain paintings. Sixty paintings from various periods of human history were located (e.g., figure 1). **Results:** Results confirmed that various civilizations from all over the world contain such myths and legends (n=71) involving creatures (32, 45%), people (11, 15%) and gods (28, 40%). People were involved in drownings as lifesavers and victims. Rescue interventions were performed by humans, animals, creatures and gods. Drownings occurred due to engagement in aquatic and non-aquatic activities in or around the water, homicide, and wrestling in the water. **Conclusion:** Collectively, this study offers a cultural insight into our ancestors’ mythological and legendary heritage, and a teaching aid for historians, teachers, swimmers, water safety advocates and academics.



Figure 1: Charon carries souls across the river Styx Alexander whereas some people try to avoid drowning by grabbing his boat. Note. Drawn by Dmitrievich Litovchenko (1835-1890). Available in the public domain. Taken from Wikimedia Commons, 2011.

References

Wikimedia Commons. (2011). Lytovchenko Olexandr Kharon. Retrieved on 9 August 2011 from [http:// commons. wikimedia. org/wiki/ File: Lytovchenko _Olexandr _Kharon.jpg?uselang=el](http://commons.wikimedia.org/wiki/File:Lytovchenko_Olexandr_Kharon.jpg?uselang=el)

Artwork Depicting Historical, Religious and Fictional Drowning Incidents due to Flooding

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Introduction: Scholarly work dedicated to study the issues of drowning and aquatics in artwork depictions is scarce (e.g., Avramidis, 2011). This study aimed to identify artwork drowning and other aquatic emergencies related to flooding. **Methods:** An internet based search revealed 25 such paintings from various artists internationally (see figure 1). **Results:** The sampled artwork portrayed mostly multiple flood victims of all ages and genders. They mainly got into difficulty during day time while engaged in activities in and around water, on land or in domestic environments. In the absence of rescuers, the victims used boats, swimming, or climbing to high places as a means of avoiding drowning. Rescuers, when present, were always male and applied reach, row, and swim-and-tow rescues. In most depictions the victims survived the event. **Conclusion:** Overall, it seems that art has augmented the fields of illustrating drowning incidents, lifesaving rescues and self-survival attempts in moments of desperation caused by flood disasters.



Figure 1: The Christmas flood 1717 was the result of a northwesterly storm, which hit the coast area of the Netherlands, Germany and Scandinavia drowning about 14,000 people. Note. Available in the public domain. Taken from Wikimedia Commons 2011.

References

- Avramidis, S. (2011). World Art on Swimming. *International Journal of Aquatic Research and Education*, 5(3), 325-360.
- Wikimedia Commons. (2011). The Flood 1616-1618. Retrieved on 22 July from http://commons.wikimedia.org/wiki/File:Christmas_flood_1717.jpg

Drowning Incidents and Aquatic Rescues Depicted in Artwork with a Military Theme

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Introduction: The aim of the present scholarly work was to identify paintings depicting drowning incidents and aquatic rescues taking place during military expeditions and to evaluate their content. **Method:** A literature review identified 16 paintings. **Results:** Drowning incidents occurred in rivers (9, 56.25%) and the sea (7, 43.75%). The causes of drowning were accidental (8, 50%), suicide (2, 12.5%) and the result of operations of war (6, 37.5%; figure 1). Paintings depicted single (9, 56.25%) or multiple (7, 43.75%) casualties who were males (14, 87.25%), females (1, 6.25%) or casualties from both genders (1, 6.25%). The outcome was either death (10, 62.5%) or survival (4, 12.5%) or was not portrayed (2, 12.5%). Survival was the result of either self-rescue (2, 12.5%) or wade (1, 6.25%) and swim-and-tow rescue (3, 18.75%) from a male amateur rescuer (3, 18.75%) or an animal (1, 6.25%). **Conclusion:** Overall, this study confirms that drowning episodes have served as themes of art through the centuries. These paintings represent a wealth of our aquatic safety heritage.



Figure 1: A Hand-Up to a Trooper in Difficulty during a River Crossing.

Note. Available in the public domain. Taken from Wikimedia Commons, 2011.

References

Wikimedia Commons. (2011a). Rescuing a drowning trooper of the 13th Hussars near the ferry crossing. Retrieved 22 July from [http:// commons. wikimedia.org/ wiki/ File: RESCUING _A_DROWNING _TROOPER_OF_ THE_13TH_ HUSSARS_ NEAR _THE _FERRY_CROSSING.jpg](http://commons.wikimedia.org/wiki/File:RESCUING_A_DROWNING_TROOPER_OF_THE_13TH_HUSSARS_NEAR_THE_FERRY_CROSSING.jpg)

Lifeguard Training Lessons from the Past

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Introduction: Beginning in the early 1900s, formalized life-saving training programs were developed to address national concerns over the large number of individuals drowning in pools and open water areas. The movement to increase water safety in the United States created the need for the creation and standardization of life-saving techniques and practices. Aquatic safety initiatives in the United States beginning in the 1930s were studied to document some of the highlights in the evolution of lifeguard training, rescue techniques and safety equipment. Lessons can be drawn from the first formalized life-saving training programs that are still applicable today and form the foundation for current water safety practices. **Method:** A literature review was conducted to identify rescue techniques taught to lifeguards in the United States beginning in the 1930s. Training manuals and historical accounts of the development of aquatic safety standards were studied to document key developments over time in the preparation of lifeguards. The focus of the research was the information, protocol, equipment and techniques taught to lifeguards to prevent drowning and perform water rescues (American Red Cross, 1956; 1957; Shanks, R.C. & York, 1996; Verge, 2005). **Results:** The actions of visionaries who designed the first standardized lifeguard programs still influence aquatic safety today in terms of lifeguard training, techniques and equipment. Despite many advances in the training of lifeguards, some basic techniques have stood the test of time. **Discussion:** Some early lifeguard techniques are outdated and no longer used. For instance, the head and hair carries are no longer popular or safe options. However, a number of early rescue techniques continue to be taught today, such as reaching and throwing assists, approach strokes, and releases. Much of the material in early textbooks focuses on personal safety, prevention and the capacity to rescue others. This focus may be lacking in training of lifeguards today. Early training programs featured discussion of acts of heroism and needless sacrifice of well-intentioned rescuers to warn potential lifeguards about the danger of taking action without the necessary knowledge and skills. **Conclusion:** The underlying principles behind development of the first life-saving training materials in the United States remain the same, to protect and save lives. The study of early water rescue techniques and training materials can help us understand the basis for current practices and may shed light on topics that may be overlooked in lifeguard training today.

References

- American Red Cross (1956). *Lifesaving and water safety*. Garden City, NY, USA: Doubleday & Company, Inc.
- American Red Cross (1957). *First Aid* (4th Ed.). Washington, D.C., USA: Author.
- Shanks, R.C. & York, W. (1996). *U.S. Life Saving Service: Heroes, rescues and architecture of the early coast guard*. Novato, CA: Costano Books.
- Verge, A.C. (2005). *Images of America: Los Angeles County Lifeguards*. San Francisco, CA, USA: Arcadia.

The Royal Life Saving Society – A Recipe for Rescue

Janet Wilson

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Introduction: The Life Saving Society was formed in London, U.K. in 1891, by William Henry. He did this in response to the high numbers of drownings recorded each year, which had reached over 2,000 in the United Kingdom, in particular in the river Thames in London. This short resume seeks to highlight the development of the Society from 1891 to the present day, when, with an increased population, the total number of drownings recorded in the UK is around 600 per year. **Method:** A literature review (see Pearsall, 1991; The Royal Life Saving Society UK, 2011) and the author's personal experience as a member of the Royal Life Saving Society UK (RLSS UK) since 1967 will be used to describe the work of the society. The author particularly served on most of its national committees, as well as being an active club lifeguard and trainer/assessor, and contributing to several educational publications. **Discussion:** *International links:* The Society grew rapidly to encompass many other Commonwealth countries and now has links all over the world, where the UK work is mirrored. Whilst much of the work is still done under the auspices of a charitable organisation, by volunteers, there are also two very successful commercial arms training professional lifeguards and selling merchandise, the profit from which supports the charity. Many swimming clubs developed a lifesaving section in the early years, some of which still exist today. As well as training the public in lifesaving techniques these clubs often used to provide demonstrations and entertainment for the public. As an offshoot to this fascination with water, and the ability of the human form to survive in it, a popular entertainment in the early 1900's was to see how long someone could survive on the bottom of a tank of water on a stage! The Society has always sought to promote water safety and rescue through its publications and by encouraging participation in various award schemes, from children's badge collections to physically and mentally demanding professional qualifications. One award, the Bronze Medallion, has survived from the early years until today, although its content has changed several times. *Royal affiliation:* The organisation was originally called the Swimmers Life Saving Society, but later changed to Royal Life saving Society, when it was granted a Royal Charter by King George V in 1924, and has enjoyed many other royal patronages, including Her Majesty Queen Elizabeth, the Queen Mother, Lord Mountbatten, Prince Michael of Kent, who is the current Commonwealth President, and Her Royal Highness, Queen Elizabeth, who granted the use of the Royal Crown with the society's badge in 1964. She herself gained the society's Intermediate Certificate in 1934. *Society's aims and objectives:* The 1891 objectives of the Society included promoting technical education, stimulating public opinion, encouraging swimming, and arranging public lectures, all of which are still at the heart of the Society's work today. *Education:* RLSS launched a new lifesaving programme called *Survive and Save* in 2011, which brings all the charitable work under one umbrella, including sport. In 2012 the 8th edition of the Pool Lifeguarding Award is being launched, with a much greater emphasis on accident prevention than actual rescue. **Summary:** RLSS UK has worked successfully since 1891 to reduce the number of drownings through educating people in water safety and rescue, and continues to research ways of reducing the 600 drownings a year still further.

References

- Pearsall, R. (1991). *Lifesaving: The Story of the Royal Life Saving Society: the first 100 years*. London: David & Charles Newton Abbot.
- The Royal Life Saving Society U.K. (2011). *The Lifesaving Manual for Instructors*. London: AMS Estates Ltd.

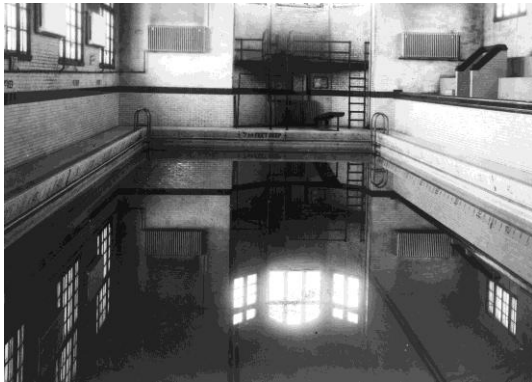
Bathing and Swimming by Design: Canadian Public Baths 1880-1924

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Introduction: Water has long represented purity and cleanliness, and is linked to oral traditions in most cultures. The containment, provision, and access to water in public baths (i.e. early swimming pools) constitutes a complex site of competing regulatory processes (see Terret, 1993; Kossuth, 2005; Crook, 2006; Love, 2007; Nzindukiyimana & O'Connor, 2011). Examining the rationale and design of these built environments in historical perspective allows a unique vantage of how values and concerns over hygiene, infectious diseases, class-based leisure, and sport competitions were implicit in water-related policies and provisions. The public bath movement, from the mid nineteenth century onwards, was an international phenomenon. Hygiene and perceived uncleanness of working-class and racialized communities came under greater scrutiny in the nineteenth century under the auspices of public health campaigns to stem contagious disease outbreaks. **Method:** Through a critical analysis of archival records, newspapers, and photographs, I will examine the development of several public baths in Canada from 1880-1924 I will situate their development within the context of late nineteenth century immigration, urbanization, industrialization, and public health campaigns, as well as early twentieth century movements for urban reform, increased leisure and sport development.

Summary: In this paper, I explore the impact of Victorian socio-cultural norms on the development and design of public baths in working-class neighbourhoods in Canadian cities during the late nineteenth century. Located primarily in neighbourhoods where residents commonly bathed in polluted rivers, canals and bays, public baths provided



gender-segregated opportunities to shower and swim in a supervised and sanitary environment. This paper will also examine the significant shift in the use and meaning of the baths during the twentieth century. Discussion will focus on the impact of the playground movement, urban reform, and public institutions playing a larger role in nation building through exercise/sport development.

Figure 1: Plant Bath, Ottawa, Canada, 1924 (City of Ottawa Archives; no. CA 018343).

References

- Crook, T. (2006). Schools for the Moral Training of the People: Public Baths, Liberalism and the Promotion of Cleanliness in Victorian Britain. *European Review of History*, 13 (1), 21-47.
- Kossuth, R. (2005). Dangerous Waters: Victorian Decorum, Swimmer Safety and the Establishment of Public Bathing Facilities in London (Canada). *International Journal of the History of Sport*, 22(5), 796-815.
- Love, C. Ed. (2007). Special issue on Pools, Public Baths and Swimming. *International Journal of the History of Sport*, 24(5), 568-706.
- Nzindukiyimana, O. & O'Connor, E. (2011). Les corps en baignade: contextualiser le bain Champagne à Ottawa, 1924. University of Ottawa Research Day, unpublished manuscript on file.
- Terret, T. (1993). Hygienization: Civic Baths and Body Cleanliness in Late Nineteenth-Century France. *International Journal of the History of Sport*, 10(3), 396-408.

Virtual Museum of Objects, Documents, Archives and Souvenir Material in Official Water Polo Competitions: The Story of a Private Collection

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Introduction: This presentation is a pilot application as a thought, designed and completed by the possibilities and requirements of a private collection, in cooperation with the new technology for the creation of a digital museum. The aim that led to the establishment of this virtual museum was to impress the athletic history of water polo material and to cover the absence that appeared to be in all over the world. At the same time, basic intention was to create a vivid virtual place, where the museum information will motivate the public to participate and will proceed the healthy aspects of sports.

Method: Through this digital museum and virtual moments, the viewer can feel the traditions in cultural level through the most important objects, documents and archives of water polo competitions, such as medals, plates, cups, pins, flags, balls, accreditation cards, souvenirs, t-shirt from private collection. The collection of the museum consists of objects and memorabilia from various World, European, Balkan, Mediterranean Games and Championships, and from the Olympic Games of 530 official water polo competitions during the period 1984- today. Specifically, the digitized material is presented, consists of 109 medals, 162 flags, 185 pins, 28 balls, 36 honorary plates, 16 cups, 43 t-shirts, 78 accreditation cards and 46 souvenir material (see figure 1).

Discussion-Summary: As with a traditional museum (see Wikipedia, 2012), a virtual museum can be designed around specific objects (akin to an art museum, natural history museum, or archive), or can consist of new exhibitions created from scratch (akin to the exhibitions at science museums). Moreover, a virtual museum can refer to the mobile or world wide web offerings of traditional museums (e.g., displaying digital representations of its collections or exhibits); or can be born digital content such as Net art, Virtual Reality and Digital art. Networking and collaboration among cultural and sports agencies in the frame of world is a subject of great importance for the world cultural and sports policy, as it leads to knowledge exchange, recording of common cultural heritage and common world history, while it provides boundless potentials for promotion to co-operating agencies.



Figure 1: Examples of the memorabilia that will be displayed in the virtual water polo museum.

References

- Wikipedia (2012). Virtual Museum. Retrieved on 10 October 2011 from http://en.wikipedia.org/wiki/Virtual_museum.
- Stavropoulos, N. (2012). Stavropoulos private virtual museum. Retrieved on 12 April 2012 from <http://www.stavropoulos.edu.gr>

An Overview of Landmark Events in the History of Water Polo 1869-1991

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Abstract

Introduction: Water polo is a popular aquatic sport with a long tradition. This paper aims to overview the landmarked events of its historical development and is based on the work of the legendary Hungarian, Bela Rajki. **Method:** Author contacted a literature search of books, articles and photographic archives. **Results:** A chronological evolution of water polo rules was clustered in time frame periods that covered chronologically the period from 1869 until 1991. **Discussion:** Each examined period contributed in some way to the development of the sport. In 1869-1900, we had the birth of the sport and the transformation from “football in the water” and “aquatic handball” to water polo. In 1901-1928, water polo spread around the world, the rules got stable and the technique improved. In 1929-1949, water polo became static and rough and new ideas to changing the rules were developed. In 1950-1960, we noted the end of the standing era of water polo. In 1961-1968, the rules changed in a wrong way. In 1969-1980, water polo got faster, diminishing the ball procession and the exclusion time. Finally, in 1981-1991, the refining of the rules set the basis for the modern and faster water polo. **Conclusions:** Water polo began its march to world popularity in Great Britain, in order to relieve the monotony of swimming galas. The new sport was spread through the ocean to Europe, America and other continents becoming popular among players and spectators. The evolution of water polo, from time to time is strongly related to the development of its rules.

Key words: water polo, history, rules, aquatics.

Water polo is a popular aquatic sport with a long tradition. This paper aims to overview the landmarked events of its historical development and is based on the work of legendary Hungarian, Bela Rajki, who was a firm believer that “*the chronological evolution of water polo rules interest all people involved to our sport giving an accurate picture of what should be done on the road of further progress.*” Water polo began its march to world popularity in Great Britain, in order to relieve the monotony of swimming galas. The new sport spread to Europe, America and other continents becoming popular among players and spectators. The evolution of water polo overtime is strongly related to the development of its rules. Rules play an important role in the development of water polo, as in all other team sports. Players and coaches adapt themselves to the rules in order to win, using appropriate techniques and tactics in order to become stronger and more competitive. In following the path of these significant rule changes over time, we see that playing style continually evolves.

Method

The author's expertise as an experienced water polo player and coach for over 40 years at the national and international level; his passion for gathering historically significant books, articles, literature and other documents, video, photography; and presenting this extensive research in a complete, concise manner required all the skill, determination and focus of a professional athlete and coach.

A chronological evolution of water polo rules was grouped into time frame periods from 1869 until 1991, each one contributing to the development of the sport:

1. *First Period (1869-1900)*: The birth of the sport and transformation from “football in the water” and “aquatic handball” to water polo.
2. *Second Period (1901-1928)*: Water Polo spread around the world, rules stabilized and technique improves.
3. *Third Period (1929-1949)*: Water Polo becomes static and rough. New ideas to changing the rules were developed
4. *Fourth Period (1950-1960)*: The end of the standing era of Water Polo
5. *Fifth Period (1961-1968)*: Changing the rules in a wrong way
6. *Sixth Period (1969-1980)*: Water Polo got faster, diminishing ball procession and exclusion time
7. *Seventh Period (1981-1991)*: Rules were refined, setting the basis for the modern and fast Water Polo

First Period (1869 - 1900): The Birth- From “Football in the Water” and “Aquatic Handball” to Water Polo

Water polo owes its invention, in 1869, to the efforts to relieve the monotony of swimming competition programmes, aiming to provide something new and attractive at Swimming Galas.

In England, on May 12, 1870, a committee was appointed to draw up a code of rules for the management of “*football in the water*”. In the following years sporadic attempts were made to popularize this ball game in the water and to draft its rules. Finally, in 1876, the Bournemouth Rowing Club staged the first water polo match defined as “*first series of Aquatic Handball matches*”. An extract from a newspaper of that year indicates that the game was particularly strenuous: “*Goals were marked by four flags moored at the west of the pier, fifty yards (45,5 meters) apart. After a “severe struggle” the ball burst (an India rubber ball, evidently the inside of an ordinary football); but the players, nothing daunted, and properly habited, displayed their aquatic accomplishments for some time*”.

By this time the English clubs had begun to play a crude style of game, the Birmingham Leander, which was founded in 1877, and the Burton-on-Trent Amateur Club, started the following year (1878), being among the first to adopt the new ball game as a club pastime. There were no printed rules. The game was played with a small india-rubber hand-ball, about four or five inches in diameter. The goals were the ends of the bath, and the goal-keeper stood on the side; sometimes the captain ordered two goal-keepers, according to the width of the bath. The mode of scoring was to place the ball on the end of the bath with both hands, the forwards sometimes nearly having their neck broken by the goal-keeper jumping on the top of them, and at other times, when trying to score, the goal-keeper would lay hold of their hands and the ball, and drag them out of the water. Match teams in 1879 consisted of about nine a side. In 1879 the width of the goals was limited to fourteen feet.

On August 6, 1883 the team of Birmingham Leander played against All-England (0-1) in a game aiming to create interest in water polo. Similar games were organized in England until 1885. Rules primitive in conception rules were allowing the ball to be passed from one player to another, and carried on or below the surface. A goal was scored when the players were taking the ball up by hand and fairly placing it on a floating stage, or boat (figure 1).

Enthusiasm of the game persisted, until 1885 when the Swimming Association recognized water polo officially and ordered the observance of obligatory rules. Until the beginning of the year 1888, there was practically no development in the rules. Then, a Committee formed by A. Sinclair, W. Henry, T. Young and H.G. Hacket revised the rules and organized a water polo championship tournament. Following the work of this Committee, the rules again underwent considerable change. Among other things the

form of the goals was changed. Their width was set at eight feet and their height at six feet above the water. Another essential change was that the players were allowed to play the ball and pass it only while swimming.

By the mid 1880's the game was expanding rapidly in England, so in 1888 the first English Water Polo Championship takes place and Burton Amateur Club becomes champion of England by defeating Otter Swimming Club 3-0 (figure 2).

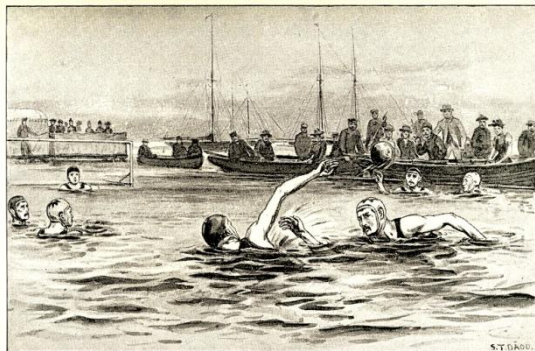


Figure 1: Engraving by S. T. Dadd. Note. Taken from Sinclair and Henry, (1883) freely available in the public domain.

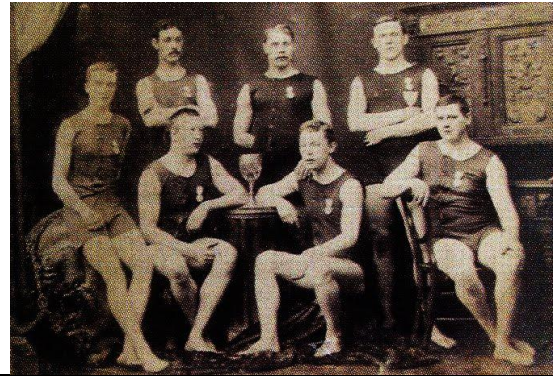


Figure 2: Burton Amateur Club, winner of the first English Championship held in 1888. Note. Taken from Juba, (2009).

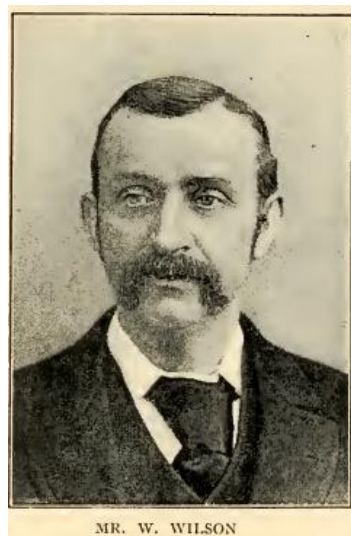
From 1888 onwards, the popularity of the game increased enormously, and in 1889, Sinclair founded the London Water Polo League with the avowed object to popularizing the game and to promote the Inter-County matches such as the games between Middlesex and Surrey. Through the League, a much better feeling than had previously existed was engendered among metropolitan swimming clubs and the game was taken up strongly in the southern counties. This caused frequent discussions among players as to the different styles of play then in vogue in England, and in March 1890, at the annual general meeting of the Midland Counties' Association, the rules framed by the A.S.A. were adopted and thus one system of play for the whole of the clubs in England was arrived at.

While in England, since 1869, the new game was expanding, at the same period of time in Scotland there was a similar progress. So, in the year 1877, before the annual competitions of the Bon Accord Club, which were to be held on the River Dee (in Aberdeen, Scotland), the President of the Club asked Mr. William Wilson of Glasgow, to set up rules for a water game termed “aquatic football” (figure 3) in order to amuse spectators and break the monotony of swimming competitions. The next year the rules were again revised for the Carnegie Club, and after this the West of Scotland as well, paid attention to the game. This led to the adoption of goal-posts similar to those used at football, and under these new conditions, in October 1879, at the first costume swimming entertainment ever held in Glasgow, the feature of the meeting was a match between the West of Scotland and Clyde Clubs, the teams consisting, as at present, of seven players each side. Ducking was not prohibited. Standing on the bottom of the bath or throwing with both hands was not allowed.

While the English clubs had been gradually improving their system of play, the Scotch clubs had not been idle, and upon the formation of the Associated Swimming Clubs of Glasgow, a committee was appointed to draft a set of rules for the proper conduct of the game. Furthermore a cup was presented for competition amongst the affiliated clubs. The first contest was decided in 1886, and as none other of its character was held in Scotland, it was to all intents and purposes the Scottish aquatic football

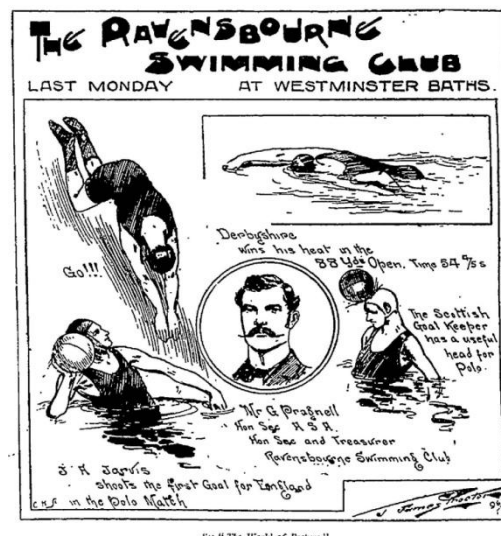
championship. The first team to win the cup was that representing the old West of Scotland Club, who beat South Side.

The Irish clubs in Dublin and Belfast had two different sets. That at Belfast was an amalgamation of the English and Scotch rules, but those adopted by the Sandycove and Blackrock Clubs were totally different, the swimmers not being allowed to throw the ball at goal, but being required to place it between two painted marks. During the mid 1880's the game was revolutionized in Ireland as well and the rules moved away from rugby to a soccer style of play. The goals became a cage measuring 10X3 feet and a goal could be scored by being thrown. Players could only be tackled when they "held" the ball and the ball could no longer be taken under water. A leather soccer ball also replaced the small rubber ball that had been used up that time.



MR. W. WILSON

Figure 3: Wilson was asked to set up rules for the "aquatic football". Note. Taken from Sinclair and Henry, (1883) freely available in the public domain.



See "The World of Pastors."

Figure 4: Engraving of 1896 presenting scenes of a Water Polo match at the Westminster Baths of London, between the teams of England and Scotland. It says: "J.A. Jarvis shoots the first goal for England in the Polo match. At the right side it says: *The Scottish Goalie has a useful head for Polo*". Note. Taken from The Penny Illustrated Paper and Illustrated Times, 1896.

The first International match between England and Scotland took place at Kensington on July 28th, 1890, England losing by 4 goals to 0. The English rules were used, but the Scotchmen demonstrated a better style of play, as they were not applying the ducking tactics of their opponents, and were far smarter in playing the ball. From this it will be seen that, although England had made far more rapid strides than the sister country in the promulgation of the pastime, the Scotchmen had developed and improved their rules to such an extent as to make their passing and swimming abilities far superior.

England lost once more against Scotland in a match played at Glasgow in October 1891, under the rules of the Scotch Association; The defeat proved to be very useful as the officials of both parties accepted to assimilate the two codes, and in April of the following year, 1892, at the International conference of Liverpool, the Scotch style of play was adopted almost in its entirety, so a complete set of rules became universal through Great Britain (figure 4).

At this point we need to clarify that all the efforts to develop and popularize Water Polo in Great Britain are also related with the massive construction of local swimming pools, as result of an earlier political decision to encourage the building of baths and swimming pools by the local authorities. From the mid 1870's people were able to swim in their local pools for one old penny. The pools obviously were small and shallow, with no goal posts, at the beginning, when the initial rules imposed that goals could ne scored by placing the ball on the side. Those pools offered the possibility of practicing all the year round, but obviously the game could not evolve correctly, as the players, taking advantage of the shallow water, naturally indulge whenever possible in a rest, by standing on the bottom of the bath.

Water Polo though, as a sport, seemed to be for far most pleasant when played in deep open still water, with skilful play instead of continuous fouling, with an absolute necessity for swimming and need to keep afloat without aid all through the match. Unfortunately, there were but few spaces of open water which were available or suitable for the game, and the almost total absence of them in large cities compels the various associations to conduct their championships and other competitions in ordinary covered-in baths. Of the open water-baths which are suitable for the game, those at Tunbridge Wells have obtained the greatest notoriety. They are admirably situated, and the natural sloping banks afford a fine view for the spectators who can look down from them into the bath, and follow every movement in the game (figure 5).



Figure 5: *"The illustration, justly entitled 'A grand throw' gives an excellent idea of the whole Tunbridge Wells bath, and, consequently, of the "field of play" also. The thrown which is a magnificent one, was, however, of no avail"* (p. 320). Taken from Broadwell, (1899).

As already stated, the play in open water is far different from that in a confined bath. The field of play is much larger, and the opportunities for making use of the swimming abilities of a team consequently greater. The boundaries are usually marked out by means of floating buoys with flags, the goal-posts being placed at each end of the field of play. They cannot be more than thirty or less than nineteen yards apart. The width of the field of play is limited to twenty yards or less. It is always well to make the size of the field of play as large as the rules permit.

During the last few years of the 1890's, the game of Water Polo has been far more scientifically played than it was at the outset, and the various alterations of the rules as here detailed have greatly tended towards this end, as they have been the means of introducing combined instead of loose play. The system prevalent up to 1888 was a mere exhibition of brute strength. Passing, punting, and dribbling the ball were scarcely ever practiced, and, except in the case of the leading teams, rarely attempted.

Until the first international match was played, nearly every game was fought out on individual lines; that is to say, the members of the teams considered that their sole duty, without regard to position, was the scoring of goals; and very often this anxiety to spoil the combination of a side led to ludicrous defeats. When England's picked seven met the Scots for the first time, the eyes of water-polo players were opened ; for the Scots, who were nearly all lightly built men, simply made an exhibition of their opponents, who during the game could not understand or in any way checkmate the skilful passing and dribbling tactics of the victors.

To the experience gained in the international match may therefore rightly be attributed the improvement in the game all round; for though the Scots had made more rapid progress than their Southern brethren, they have also benefited largely by the innovation.

Concluding this brief description of the birth and the amazing development of Water Polo in Great Britain from the 1870's up to 1900, it is obvious that that the level and style of play was evolving around the various countries and at the same time the rules in force were arriving to a consolidation.

By the beginning of the new century, in 1902 the International British rules were in force. The most important of those rules, which offered a solid base for the future progress of Water Polo in the World, were the following:

1. The width of the goals should be 10 feet, the cross-bar, 3 feet above the surface when the water is 5 feet or over in depth, and 8 feet from the bottom when the water is less than 5 feet in depth.
2. The teams consisting of seven players should wear dark blue caps, white caps and the goal-keepers red caps.
3. The distance between the goals should not exceed 30 yards, and the width not to be more than 20 yards.
4. The duration of the match should be 14 minutes, 7 minutes each way. When a goal has been scored, the time from the scoring of the goal to the re-starting of the game, or time occupied by disputes or fouls, is not be considered as in the time of play.
5. An ordinary foul should be considered: To interfere with an opponent or impede him in any way, unless he is holding the ball, to hold the ball under the water when tackled, to hold, pull back, or push off from an opponent, to turn on the back and kick at an opponent, For the goalkeeper to go more than four yards from his own goal-line, to throw the ball at the goal-keeper from a free throw.
6. If in the opinion of the referee, a player commits an ordinary foul willfully, the referee should at once order him out of the water until a goal has been scored.
7. The referee should declare a foul by blowing a whistle and exhibiting the color of the side to which the free throw is awarded. The player nearest to where the foul occurred should take the throw. The other players should remain in their respective positions from the blowing of the whistle until the ball has left the hand of the player taking the throw.
8. A player willfully fouled when within four yards of his opponents' goal-line shall be awarded a penalty throw, and the player who commits the offence must be ordered out of the water until a goal has been scored.
9. The goal-keeper is not allowed to throw the ball beyond half-distance.

By 1888 water polo was introduced in the USA thanks to the efforts of John Robinson, an English swimming instructor employed by the Boston Athletic Club. The game had then spread in America where rules altered aiming to make the game suitable for small, covered swimming pools. Unaware of the new rule changes, Robinson introduced the old “football” style rules which soon took on their own characteristics of American football in the water. “American style” water polo became instantly popular with swimmers and spectators alike (figure 6).

LADIES' DAY EVENTS.

MANY VISITORS AT THE NEW-YORK ATHLETIC CLUB.

The nineteenth ladies' day of the New-York Athletic Club attracted the usual throng to the clubhouse yesterday afternoon. The only novel feature of the occasion was a game of water polo played in the large swimming tank on the ground floor. It proved to be such a success that it is likely to be repeated. The game had never before been played in this city, but it has been tried with much success in Providence and Boston.

It was played yesterday by two teams of six men each, the object being to touch the goal at either end of the tank with a large rubber ball, and the struggles to accomplish this were productive of much laughter on the part of the spectators and the apparent swallowing of tons of water on the part of the contestants. The expressions, "Line up rubbers," "Pass the ball to centre rush," or "Down him there," sounded strangely familiar, but rather out of place in the water. Prof. Gus Sundstrom, who played "full back" for the winning team, distinguished himself by reaching the ball first every time it was put in play. The teams were:

BLACKS—Waldo Sprague, J. W. Carter, Herman Braun, N. Bosworth, C. J. Kistner, E. J. Walls.
 REDS—Prof. Sundstrom, E. Berry, F. Vilmar, C. E. Knoblock, H. E. Toussaint, C. T. Shlessinger.

The score was 5 to 0 in favor of the Reds.

Figure 6: Extract presenting the first water polo game held at the New York Athletic Club. Note. Taken from The New York Times (1890).

At first it was a rough and tumble scramble with sketchy rules and all kinds of tackles and holds permitted. L. De B. Handley and J.A. Rudy, formerly of the New York Athletic Club, were responsible for bringing the game to this country. Under the direction of Handley and with Ruddy playing on one of the teams the game was tested at the New York Athletic Club. Believing the game merited further consideration, Handley persuaded the New York Athletic Club to allow the team to take an educational tour of the East and Middle East. The first competitive game on record in the country was played in Chicago in 1895 between the New York and Chicago Athletic Clubs.

Indeed by the late of 1890's Water Polo was being played in venues like Madison Square Garden and Boston's mechanics Hall which attracted over 14.000 spectators to one National Championship game.

The essence of the change was that they did not permit throwing for goal and the goal was replaced by a marked painted on the wall. A goal was scored when a player touched the mark with the ball held in his hand. The game in the US was a strong; more rugged style that in Britain (figure 7).

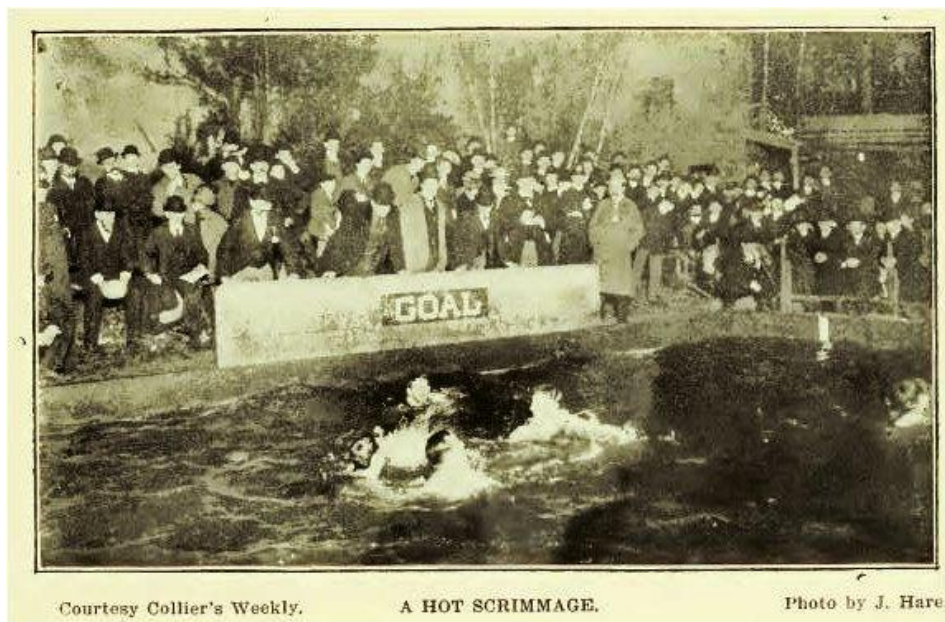


Figure 7: “A hot scrimmage” during the 2nd official U.S. National Championship held at Madison Square Garden, New York in 1899. Note. Taken from Sundstrom, (1901).

In 1897 Harold H. Reeder of the late Knickerbockers Athletic Club revolutionized the system of play, educated players and officials with the secrets of the game and brought to light many new plays. The progress which the innovation was responsible for no one realized until the aggregation of yearlings from the Knickerbockers Athletic Club defeated the formidable array of champions representing the New York Athletic Club (figure 8).

There was much body contact and teams played with a semi inflated rubber ball. The emphasis was on possession of the ball. A player couldn't take the ball under the water unless tackled by an opponent. The style is different from elsewhere in the world. Dribbling the ball between the arms was utilised but players could also swim with ball placed between their legs. A tackled player could be forced under until he released the ball or fought off his opponent. The game became known as “softball water polo” (figure 9). It is a contest between two teams of six, having as object the touching of the opponent's goal board with an inflated rubber ball seven inches in diameter. To score, the ball has to be touched to the goal while in the hand of a player; it cannot be thrown.

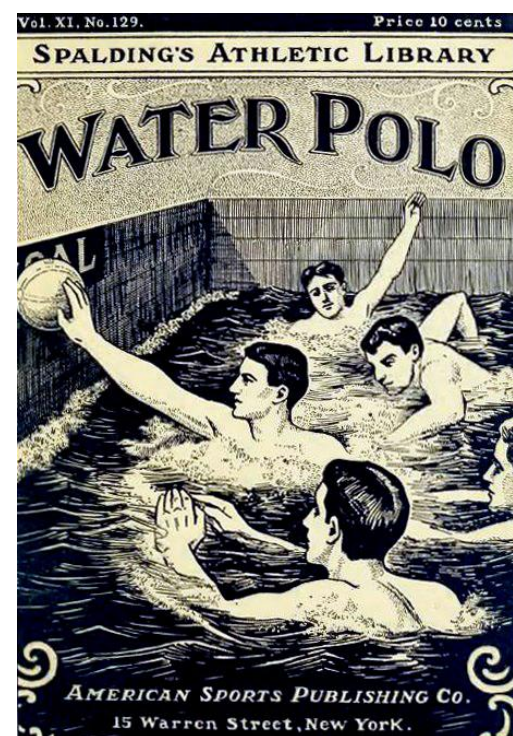
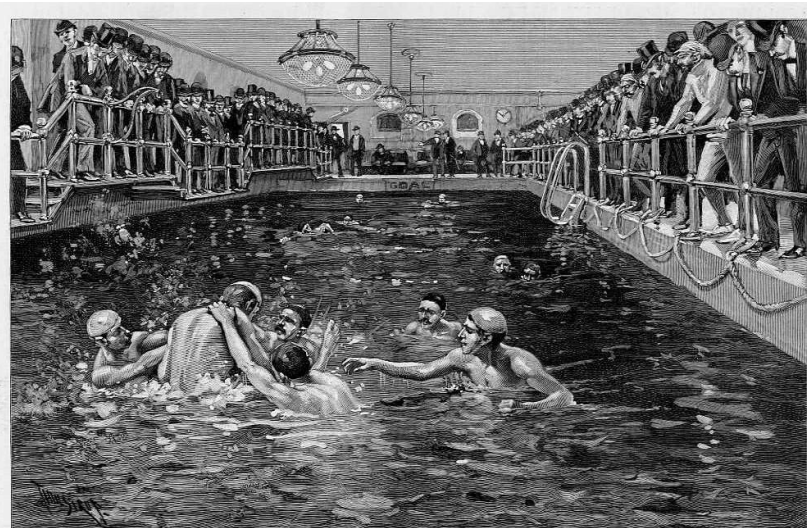


Figure 8: Men playing water polo. Note. Taken from Handley, (1910).

The goals are spaces four by one foot, situated at each short end of the playing area, eighteen inches above the water level. The size of the playing area is optional; the recognized dimensions are 60 x 40 feet or 25 x 75 feet, with a uniform depth of seven feet of water. Each team of six is divided into a forward line (centre, right forward and left forward) whose duty it is to attack the opponent's goal; and a backfield of three (half-back, right goal-tender and left goal-tender), upon whom devolves the defence of the home goal. At the start of play the two teams line up their respective ends, the referee places the ball in the middle of the playing area and then blows a whistle. At this signal the twelve players dive in, the forwards to make a dash for the ball, the backs to take up their positions. The forward who first reaches the ball tosses it back to the defense men, who hold it until the line of attack is formed and then pass it back. Immediately a fierce scrimmage takes place and either a score is made or the ball changes side and a scrimmage occurs at the other end. After the score the teams line up as at start of play. Time of play is sixteen minutes, actual, divided into two halves of eight minutes each, with an intermission of five minutes between halves. Only two substitutes are allowed, and they can only be used to replace an injured or exhausted player.

The game in America was mainly an inter-Club game in these early days. Clubs represented included the New York Athletic Club, the Manhattan Athletic Club, the Knickerbockers Athletic Association, the Chicago Athletic Association, the Illinois athletic Club of Chicago, the Brookline Athletic Club, the Pittsburgh Athletic Club and the Missouri Athletic Club. Practice games were played until the Amateur Athletic Union officially took control in 1912 and conducted tournaments both indoor and outdoor.



WATER POLO AT THE MANHATTAN ATHLETIC CLUB—DRAWN BY T. DE THULSTRUP—[SEE PAGE 154]

Figure 9: Water polo in the Manhattan Athletic Club. Note. Engraved by T. de Thulstrup. Taken from Harper's Weekly, New York, (1891). Freely available in the public domain.

After 1893, water polo began to spread in the continental Europe where it was first played in Germany (1893), Austria (1894), France – Belgium (1895), Italy (1900).

The new sport was introduced to Hungary in 1897. The first exhibition match was held in 1899. It wasn't until 1901, however that serious Water Polo fixtures were played. In that year the first Hungarian Water Polo team, the MUE, played its first International game against the WAC team in Vienna and lost by 14 goals to nil (figure 10).

Up to 1900, it was by the constant alteration of the rules that the experts striving to popularize water polo ensured progress, indicating the trend in technique and tactics by confining the activities of the players within proper framework. The first International games gave sufficient experience and new ideas concerning the further development and definition of the rules.

Second Period (1900 - 1928): Water Polo Spreads around the World, Rules Getting Stable and Technique Improves

From the beginning of the century, for a period of twenty years the accent of rule-adjustments that would ensure development noticeably weakened. The rule expressed rigid conformity to the small field of playing area as well the ceasing of play upon the whistle of the referee.

Water polo entered in the Olympic program in Paris 1900, Olympic Games, being the first team sport to be included with the Olympics (figure 11).

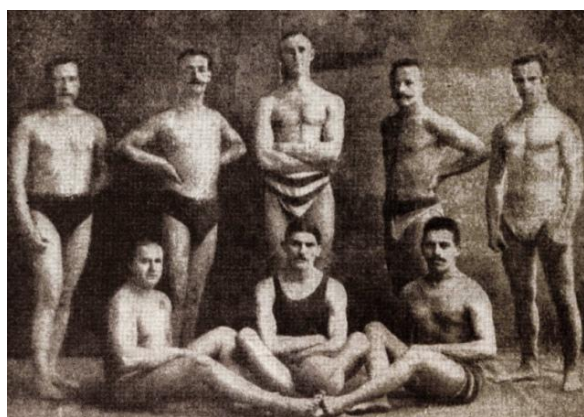


Figure 10: The team of Magyar Úszó Egylet (MUE) of Budapest in 1903. Taken from Gyarmati, (2001).



Figure 11: The team of "Osborn Swimming Club" of Manchester winner of gold medal in Paris, 1900 Olympic Games. Note. Taken from Juba, (2007).

In the course of previous decades there had been an alteration of influences, were rules contribute to the development of the game and the progress of the game that made the changing of rules necessary. Regarding to the skill repertoire of the players the extended arm throw was abandoned and gradually gave way to passing with the use of elbow and wrist. Different shot variations were appearing like the lob shot, the back hand, the Doppler. The Hungarians were the first to master and exploit new technical skills that contribute to the transition of playing the game in the air. We must notice that the development of ball handling was related to the small field of play, since it was rather difficult to find big swimming pools around Europe.

Generally speaking we can say that the development process was not so important as until 1900, considering also the negative impact of the First World War. From the beginning of the century for more than two decades, the makers of the rules lagged behind in their effort to promote further development. Their rigid adherence to the possibilities of small swimming pools – primarily to the players remaining on the spot after referee's signal – impeded the development of play to the proper extent. Adherence to a small field promoted only the development of technique. Play in a small area demanded excellent ball handling qualities. Consequently, in the course of ball from elbow and the wrist in place of the outstretched arm, the lob, doubling, the full screw, the half screw, and finally play in the air.

European Nations did not compete in water polo in Saint Louis 1904 Olympics, thus the games were played under the American rules. Most American teams played in small indoor pools, which weren't suitable for the open passing game that had developed in Scotland. Because of that, and probably also because of the influence of American football, the U. S. version of water polo became even rougher than the primitive English version had been. A unique, "softball" form of the sport developed; using a semi-inflated ball that could easily be held and carried below the surface, so a player could grab the ball and make a dash toward the goal, often swimming underwater to get there. In the softball variety of water polo, as in American football at the time, mass formations became the rule, with the ball carrier guarded by an escort of teammates while defenders tried to break through, or under, the blockers to get at the ball. The Amateur Athletic Union (AAU) took over as the national governing body for water polo in 1906 (figure 12).

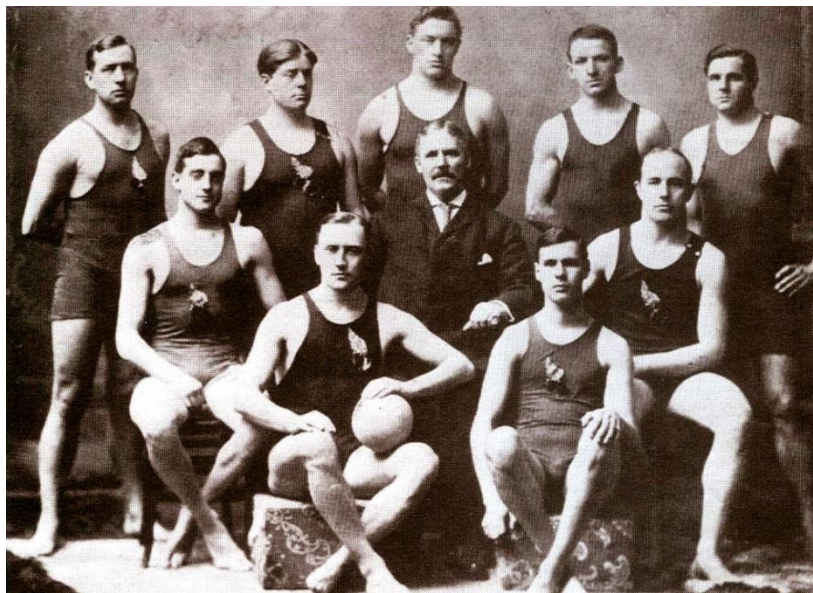


Figure 12: The team of "New York Athletic Club" winner at Saint Louis 1904 Olympic Games". Note. Published in Juba, (2007). Taken from the International Swimming Hall of Fame with permission.

The competition won by New York Athletic Club, was held in extremely polluted artificial lake prepared for the World Fair which took place concurrently with the Olympics (figure 13).

In London 1908 Olympics, Britain won the gold medal beating Belgium in the final. The games were held inside the White City Stadium, venue of the athletics and cycling events. The matches were conducted under the International rules. During the same period in America Louis de B. Handley, captain of New York Athletic Club, was encouraging the US water polo society switch to the English rules. He arranged exhibition games under the English rules in the East and Midwest of America who was planning to send a team to London but a qualification match between Chicago and New York Athletic Club prevented this. Amid violent scenes in the course of the match, players were taken unconscious to the Hospital and the Amateur Athletic Union suspended water polo from its list of Olympic Sports (in the U.S.; figure 14).



Figure 13: Action during the water polo competition in Saint Louis 1904, Olympic Games held at “Life Saving Exhibition Lake”. The United States swept the medals in water polo, but the scene was marred by argument and controversy, and, ultimately, fatal repercussions. Note. Taken from Barney & Barney, (2004).

WATER POLO TEAMS IN FIERCE CONTEST

Chicago Swimmers Injured in
Game at New York Athletic Club.

HOME PLAYERS SUSPENDED

Visitors Refused to Continue Contest
After Being Ordered to Do So by
Referee and Were Disqualified.

A terrific game of water polo between the New York A. C. and the Chicago A. C. teams closed the Amateur Athletic Union championship tournament in the swimming tank of the New York A. C. last night, with the New York A. C. swimmers the victors by default of the visitors under singularly sensational conditions. Rough play and charges of foul tactics marked the bitter contest from first to last, and because of the disabling of players on two occasions play was interrupted for official decision on charges made and men were ruled out or suspended while substitutions in the line-up were made to enable the game to go on. In that style it went on to a tie at the end of the regular two periods of eight minutes' play each, the score then standing 1 to 1.

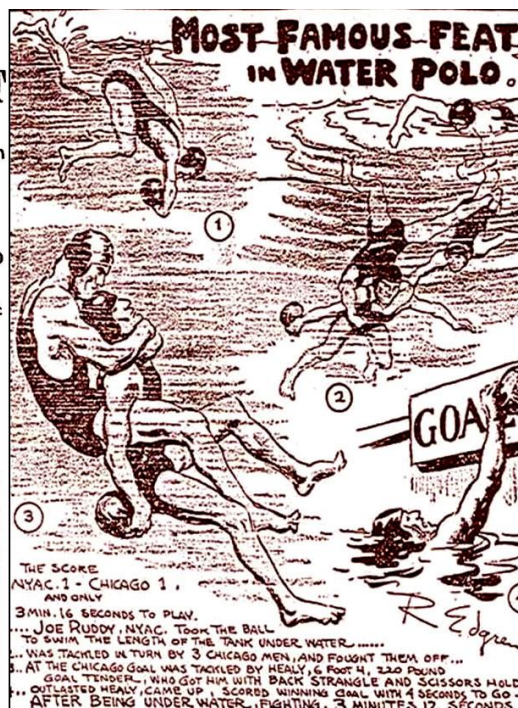


Figure 14: Water polo teams in fierce contest. Note. Taken from The New York Times, (1908).

In Stockholm 1912 Olympics the British team won in a tough match beat Belgium 7-5 and captured the gold medal (figure 15). The semi-final between Britain and Sweden 6-3 was an extremely rough game as well and the referee struggled to control it.

It is interesting to note the recommendation to the referees published within the Stockholm 1912, Olympic Games Official Report:

“Advice to the water polo Referee: Rule 17. See that all free throws are made from the place where the foul occurred. The referee shall declare the foul by blowing a whistle, but he should not give the signal for the throw to be made, the player of the side to which the throw has been awarded, and who is nearest to the place where the foul was made, having to take the throw without any delay. It is of the greatest importance for the referee to have his attention well fixed on the other players, to see that none of them leaves the place he occupied when the whistle sounded. Many offences are committed against this rule, and it is necessary for the referee to be careful to enforce it. The first time a player offends against it, the referee can warn him, but if the foul is repeated, rule 16, article d) must be applied....” (Olympic Games Official Report, 1912, p. 1075).



Figure 15: The team of Great Britain, gold winners in Stockholm 1912 Olympic Games. Note. Taken from Hermelin & Peterson, (1912).

Once again the US team did not participate in the 1912 Games. The violent scenes of the qualification game in 1908 repeated themselves between New York Athletic Club and Chicago AA and the Amateur Athletic Union withdrew its sanction for the Sport once more. This further hastened the end of the American rules of softball water polo (figure 16), so in 1914, most U. S. teams agreed to conform to the international rules, and the AAU again began conducting national championships. (Some teams and unsanctioned leagues, however, kept playing the "softball" version of water polo into the 1930s).

The Aquatic events in Antwerp 1920 Olympic Games were held in an especially constructed, but extremely cold part of an Antwerp canal. The British (and Ireland) team won the final against Belgium 3-2 but the win was unpopular with the spectators. At the end of the game the British team was attacked by Belgian supporters and had to be taken away under the protection of armed guards. This was the end of Britain's winning sequence, which, with the exception of 1904 where the competition was played under different format, stretched back to 1900 (figure 17).

FIGHT IN WATER POLO GAME

New York A. C. and Chicago A. Teams Involved in Row in Pittsburgh

PITTSBURGH, Penn., March 11.—A free-for-all fight in the water stopped National water polo championship preliminaries between the New York Athletic Association and Chicago A. A. in the Pittsburgh Association tank to-night. Dr. L. Savage, physical director of the Pittsburgh Association, stopped the game before the close of the first half and announced that he would advise that several of the contestants be barred from clubhouse.

Figure 16: Fight in water polo game.
Note. Taken from The New York Times, (1912).

CROWD AT OLYMPICS BOOS BRITISH ANTHEM

Victory of England in Water Polo Game Angers Spectators—
Apology Is Demanded.

ANTWERP, Aug. 27 (Associated Press).—The "booing" of the British national anthem at the conclusion of this afternoon's water polo match, in which England won a closely fought game from the Belgian team, resulted in the British representatives calling a meeting of the representatives of all the nations competing in the Olympiad this evening. At the meeting a protest was made over what was termed a "national insult," and it brought a promise of the publication in tomorrow's official program and in the Antwerp papers of an apology for the action of the spectators. The apology will be made on behalf of the Belgian Olympic Committee. The American representatives attended the meeting.

The incident occurred at the conclusion of what was virtually the gala day of the Olympic swimming competitions. The Belgian Princess Marie Jose occupied the royal box. The British Black Watch Military and Piper Bands played at intervals during the program. Main interest centred in the polo championship match. The British and Belgian teams had been picked by the public as the best teams entered and, as a result, the grand stands were crowded.

The feelings of the spectators were manifest early in the contest, when each adverse decision against the Belgian team by the Swedish referee occasioned prolonged booing from the Belgian supporters. This was heightened when the referee disqualified two Belgian players and one Englishman for fouling.

The Princess was leaving the royal box amid the cheering of those in the nearby sections of the grandstand just as the Union Jack proclaiming the English victory was being run up and the band was playing "God Save the King." Those who saw the Princess continued their cheering until she entered her motor car, but a majority of the thousands present, ignoring the attempts of the Belgian officials to quiet the demonstration, booed and hissed even for a few minutes after the band had finished the anthem.

Figure 17: During the final match in Antwerp 1920 Olympic Games, Belgium lost the final against the team of Great Britain with 3-2. Belgian fans, quite unhappy with the decisions of the Swedish referee started "booing" when the band played "God Save the King".
Note. Taken from The New York Times, (1920).

It is interesting to mention that there is evidence that Women water polo has been included as exhibition Sport within the competition program in Antwerp Olympics (figure 18).



Figure 18: At the first page of the Official Yearly Report from the Netherlands Swimming Association for the period 1920-21, it is noted: *“With great pleasure we may refer in this report, which has to be short even on this particular point, to the water polo demonstration match, played in the swimming week of the Olympic Games and which was initiated by the ‘Hollandsche Dames Zwemclub’ (‘Dutch Ladies’ Swimming Club’) and played by some 14-some ladies from Amsterdam and Rotterdam. We are quite certain, that this exhibition has shown a great propaganda for women water polo and we very much hope, that the International Olympic Committee will honour the request of the Netherlands Swimming Association to include women’s water polo in the future program of the Olympic Games”*: Taken from Bijkerk, (1993, p. 25).

In Paris 1924 Olympic Games, Great Britain’s domination stepped back after losing a thrilling semi-final against Hungary. After 3 periods of extra time the British dynasty gave up and the beginning of the rise of Hungarian water polo “Empire”. France with leading personality, Henri Padou, won the gold medal beating Belgium in the final at full of crowd Paris Olympic pool “Stade de Tourelles” (figure 19).

In Amsterdam 1928 Olympic Games, Germany, which did not compete in 1924, defeated Hungary in extra time (5-2; figures 20, 21, 22).



Figure 19: Picture of the final match for the Paris 1924 Olympic Games between the teams of France and Belgium. The game won by France by 3-0 was held at the Olympic pool of Paris “Les Tourelles”. Note. Jeux Olympiques de Paris 1924. Les cartes Postales An Paris.

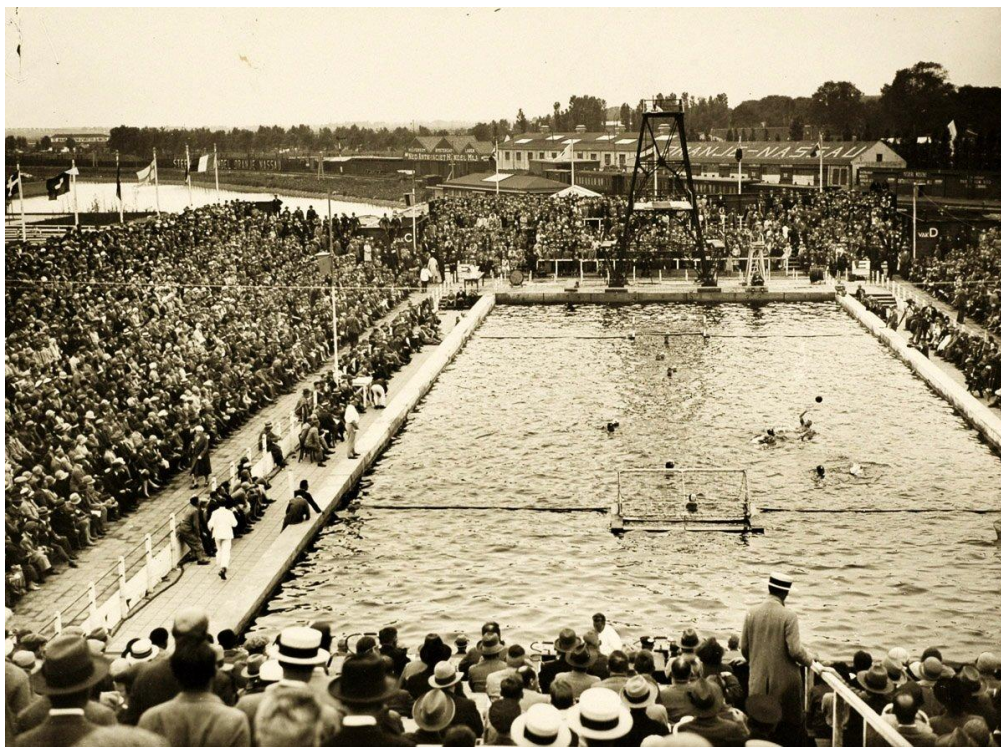


Figure 20: General view of the water polo grand final in Amsterdam 1928 Olympic Games between Germany and Hungary (5-2). Note. Taken from Shepard, (1930).



Figure 21: The team of Germany, Olympic winner in Amsterdam 1928 Olympic Games. Note. Taken from the Amsterdam Olympic Games, (1928).



Figure 22: The team of Hungary winner of silver medal in 1928, Amsterdam Olympic Games. Note. Taken from Gyarmati, (2001).

During the 1920's, two improvements occurred which completely changed the concept of Water Polo. First, larger and deeper pools came into use, increasing the importance of swimming proficiency. Second the Hungarians introduced the idea of passing the ball back and forth in the air without having it touch the water. This new technique, which seems so natural today, was a radical departure from the old style of playing, and immediately made ball handling a vital part of the game.

In the United States, unfortunately, while a "wide open" style of play featuring sprint swimming and sharp passing was promoted by the Hungarians and adopted by most other countries, the sport was headed in the opposite direction. The leading clubs in the country were still playing an underwater type of game, in which a soft, half inflated ball could be taken beneath the surface where wrestling and struggling were permitted. As a result breath holding became more important than swimming speed and the necessity of adept ball handling was but eliminated, resulting in a disinterest in this "underwater polo" from the mid-20's through the late 1940's.

Third Period (1929 - 1949): Water Polo Becomes Static and Rough – New Ideas to Changing the Rules and Move Forward

After 1928, it was the development of the "play" itself that made the frequent modifications and improvement of the rules necessary. Rule makers tried to simplify and explain the text of the rules that proved to be quite useful in later years. Water polo was spread around Europe and at the same time became extremely popular in South America (Argentina, Brazil etc).

In the 1932 Los Angeles Olympics, Hungary won its first gold medal out placing the Germans, who won the silver medal. The first riot in the Los Angeles 1932 Olympic Games occurred when Germany had beaten Brazil, 7 to 3. During the game, 40 fouls were assessed against the Brazilians, while the Germans were called for only four. When the final whistle blew, ending the fray, Luis Henrique Da Silva, the huge Brazilian goalie, and his team mates jumped out of the pool and gave chase to the referee Bela Komjadi of Hungary. They eventually caught him in the fifth row of the grandstand when De Silva landed a vicious punch on Komjadi's chin. At this point, police officers stepped in to quell what was sure to become a full-scale riot. Komjadi regained his sense of humour after things had quieted down. *"I guess I don't know the Brazilian rules; The Brazilians have no idea of how to play water polo. ... It stands to reason that if I were to be unfair I, as a Hungarian, would be prejudiced against the Germans, our big rivals"*, he commented. Olympic officials banned the

Brazilian team for the rest of the Games. Bela Komjadi, established “MTK of Hungary”, and was credited with the invention of the “dry pass” in water polo (figure 23).



Figure 23: The team of Hungary winner of gold medal at Los Angeles 1932 Olympic Games. Note. Taken from Gyarmati, (2001).

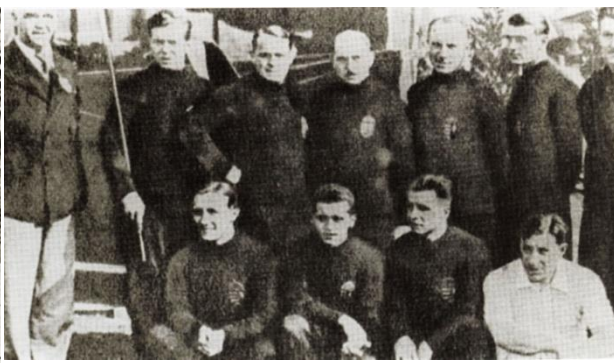


Figure 24: The National team of Hungary, gold winner in Berlin 1936 Olympic Games. Note. Taken from Gyarmati, (2001).

In the Berlin 1936 Olympics, Hungary wins once more, while the German team finished second and Belgium third (figure 24).

The idea of changing the rules in order to make the game faster became more popular. The Germans were promoting the idea of imposing a limit of time to an excluded for major foul player, rather than until the next goal which discouraged referees from sending players out. Although this was not adopted by FINA, a suggestion by Austria that an International panel of referrers should be established, was agreed upon. In 1939 in Doetinchem, the International Water Polo Board discussed a suggestion that was supposed to reduce frequent barring by means of an alternate call. For these purposes “throwing directly at goal from a free throw was introduced in January 1st 1942 and abandoned in 1949. The main point of this new rule was that the penalty could be awarded for major fouls committed outside of the 4-metres area. The player executing this free throw could not throw the ball in front of himself twice, neither give along running pass to himself. On the other hand he could shot the ball at the net posts or crossbar; he could take another shot or make another pass. The new rule “to throw the ball directly from a free throw” however did not fulfil expectations, and did nothing to reduce the roughness of the game.

During World War II water polo in Europe was not played that much, but in South America the game was very active. This fact offered possibilities of evolution to the game itself that ended with the promotion of revolutionary rules that were promoting a faster and a more attractive game.

After World War II, the first important international event was the 1947 European Championships in Monte Carlo. This was when experts noted that the game had not developed at all during the War years; thus suffering a setback. Roughness became widespread, and there were more whistles than actual play during the game. At the London 1948 Olympics, water polo experts had yet another opportunity to gather impressions. After the Olympics, the International Water Polo Board called upon member countries to try the South-American rules as a sort of experiment in the interest of improving the game. According to the South-American rules, it was not compulsory to stay in one place at the blow of the whistle. The member countries summed up their impressions at a meeting of the Water Polo Board in August 1949, in Milan. The recommendation for a rule change made at this meeting had a huge impact, since it called

up for abolishing the rule that made it compulsory for the players to freeze at the whistle. The immediate effect in 1949 was that the FINA International Water Polo Board proposed the testing of Argentinean rules, the players to move after the whistling of the referees. The effect was immediate, changing drastically the character of the game as well as of its development for many years to come. They were officially adopted as of January 1st 1951 after a test year. These rules marked the beginning of a new era.

In London at the 1948 Olympic Games, Italy, coached by Pino Vale, won the gold medal, Hungary the silver and the Netherlands the bronze medal. None of the great Hungarian players from the first era remained, but the tournament saw the debut of Dezső Gyarmati, the backbone of the second golden team of Hungary. The Hungarian team was now being coached by the great Bela Rajki, famous for his seminal work about water polo (figure 25).

In the US, a few coaches kept promoting the surface style of playing, but it was not until 1948-49 that they were able to convince that this style or play offered more enjoyment and opportunities than did underwater polo. Since then, the swing has been back to the surface style of water polo, with the eye-catching passes and shots, swift swimming and team tactics.



Figure 25: The Italian gold winner in London 1948. Note. Taken from Anghileri, (2002).

Forth Period (1950 - 1960): The End of the Standing Era

With the abolition of the need to remain in one place after the blow of the whistle enabled experts to make greater contributions to the development of the game. This new regulation posed a great challenge to the players and the coaches forcing them to invent new tactics. Constant motion was demanding better stamina, speed and technique. Coaches had to find new strategies taking advantage of the possibility for the players being able to move. There were also a great number of modifications made in the 50's. One change deserves special mention as regards the 1952 Olympics in Helsinki. This change concerns the rights of the referee; "every decision of the referee is final." The reason behind the introduction of this regulation was the outbreak of a scandal at the Olympic water polo tournament meet between Yugoslavia and the Netherlands. The game had to be replayed as a result of a mistake of the Belgian referee Alfonse Delahaye. The actual goal of the amendments was to put an end to protests, but it proved to be

overambitious because it gave unlimited power to the referee. It didn't survive very long, and was eliminated two years later, when a meeting of the International Water Polo Board reinstated the old rule.

During the 1952 Olympics in Helsinki the Hungarians won the gold (figure 26) while Yugoslavia the silver and Italy the bronze medals. To note, Soviet Union appeared for the first time in the Olympic water polo competition, and secured a 7th place.

The Melbourne 1956 Olympics are remembered from the game between Hungary and the Soviet Union, known as the "Blood in the Water" game, due to the punch in the face of the Hungarian Ervin Zádor by the Soviet player Valentin Prokopov. The match was discontinued with just 1 minute remaining, to prevent a possible crowd riot. Hungary won the gold while Yugoslavia captured the silver and the Soviet Union the bronze medal (figure 27).



Figure 26: The National team of Hungary, gold winner in Helsinki 1952 Olympic Games. Note. Taken from Gyarmati, (2001).



Figure 27: The players of Hungary, winners of Melbourne 1956 Olympic Games along with their legendary coach Bela Rajki. Note. Taken from Gyarmati & Csurka, (2006).

In the Rome 1960 Olympics, Italy won the gold medal for a second time, following London at 1948, the Soviet Union the silver and Hungary the bronze medal (figure 28).

Evaluating the ten year period between 1951 to 1960, it can be concluded that the initial momentum of water polo development tended to have more and more trouble with inertia, despite the fact that the game was gaining popularity. When examining the causes for this setback in development, we get interesting results. The main reason for the setback turned out to be the "impatience"; to attain quick results. In the preparation of the teams, the coaches tended to spent a disproportionally greater amount of energy on developing stamina as compared with technique. As a result, the development of technique lagged behind that of stamina. Generally, the result of an insufficient knowledge of technique led to shortcoming in tactical solutions. The trend of development in this ten year period can best be characterized by reversing the old saying to read "brawn over brains". The result was the development of a new style of play that the experts referred to as "Sprint Polo". This trend, characterized principally by roughness, not only had a harmful effect on the development of the game, but also affected the level of refereeing.



Figure 28: The National team of Italy, winner of gold medal at Rome 1960 Olympic Games. Note. Taken from Dennerlein, (1968).

The rule makers could clearly see the reason of deterioration of the game, since in the years following the introduction of free movement, most regulations aimed to alter any the obstacles of this free movement as well as reducing the physical stress on the players.

Fifth Period (1961 - 1968): Changing the Rules in a Wrong Way

In 1960, the FINA Congress organized on the occasion of the Olympic Games in Rome, settling upon a number of significant rule changes. Among the alterations the one concerning the duration of the game was of primary importance. The time was split in four quarters, each consisting of 5 minutes of actual play. Furthermore each team was to consist of 7 players and 4 substitutes. The rules till 1964 provided ideal conditions for a possible progress, not being responsible for the further decline of the game. The attempt of the various leading nations to make the game “nicer” and “fairer” was evident. No progress however could be de noticed in the refereeing. The only way that the experts saw from this discouraging situation was the introduction of rules changing. The FINA congress at Tokyo, 1964 gave permission to the Bureau for the examination of several suggestions and immediate introduction of the most appropriate ones. The guidelines were to find a way ensuring that the teams play with an equal number of players, cancelling the exclusion of the players. Additionally, delays had to be prevented, unfair fighting should be eliminated, and the frequent whistling of the referees to be limited. The experts involved in such rule modification procedure were striving to arrive at a good solution, but pressed at the time and without serious testing, they chose the wrong modification.

In the Tokyo 1964 Olympics, the the Hungarians once more won the gold medal, Yugoslavia was second and the Soviet Union third (figure 29).

The line of consideration set up by the FINA Bureau after the 1964 suggested that the teams should play with an equal number of players through the entire match, in short, exclusion until goal is scored had to be dropped. In April 1st, 1967 under those circumstances, the “penalty point” regulation, was introduced for a trial period. According to this new rule, for every major foul, the infringing team received a penalty point, and after every third such point, the referee awarded a penalty shot against that team.

The game of water polo had reached one of the most critical stages in its entire history right before the 1968 Olympics in Mexico City. The penalty point system increased to a large extent the need for intervention by the referee. Furthermore it forced the players to play with the fear of committing major fouls, in order not to penalise the whole team with the 4 m. penalty. The attackers on the other hand, were trying to create situations forcing the defense to accumulate 3 major fouls, instead of trying to score. At the final game in Mexico 1968, Yugoslavia had beaten the Soviet Union by 13 to 11, with 23 goals being scored by the 4 m. penalty and only one goal in action.



Figure 29: The National team of Hungary gold winner in Tokyo, 1964 Olympic Games. Note. Taken from Karle & Varga, (2008).



Figure 30: The team of Yugoslavia gold winner in Mexico 1968 Olympic Games. Note. Taken from The Croatian Water Polo Federation, (2010).

After this period FINA, recognised that although the penalty point system kept the number of players even, it increased to a large extent, the intervention of the referees, without any effect on reducing delays. The general sentiment can be best illustrated by the large number of proposals presented to the FINA Congress in Mexico, that were all aimed at changing, and improving the rules (figure 30).

Sixth Period (1969 - 1980):

Water Polo Gets Faster, Diminishing Ball Possession and Exclusion Time

This time the examination of the proposals, the selection of the best ones, was done with great care. The final endorsement was preceded by a whole series of meetings and discussions, as well as the actual testing of the suggestions in practice. The moulding and the working out of the text for the rules took an entire year. The new rules were officially introduced on January 1st, 1970 but they employed the new rules through the trial year of 1969 all over the world.

Based on the experience of the trial period the “penalty point system” has been withdrawn. Now it was not the team any longer but the infringing player himself that received a penalty point for committing a major foul. If a player collected three “personal faults” he was to be excluded from the remainder of the game, but his place could be taken by another player after expiration of one minute actual play or after a goal had been scored, whichever period is shorter.

Among other important changes that were finally accepted it should be mentioned the introduction of 1 minute exclusion as the penalty for every major foul committed by the players, the restriction of ball possession to 45secs, and the introduction of substituting a player after a goal has been scored. This alteration quickened the pace of the game a great deal, by enabling the 11 players to take full advantage of their capacities and by presenting the possibility of employing a wider range of tactical solutions.

The rules born in this period ensured the possibilities of future development of the game. They provoke higher rhythm of the game, and a bigger exploitation of the recourses of the 11 players of the teams. The excluded player could no longer deliberately delay the execution of the free throw. By restricting possession of the ball to 35 sec. and the exclusion time to 45 sec. the possibilities of freezing the ball were reduced.

In Munich 1972 Olympic Games, Soviet Union wins the gold 20 years after their Olympic debut in 1952. Hungary won the silver and the US team the bronze (figure 31).



Figure 31: The team of Soviet Union (USSR) winner in Munich 1972, Olympic Games. Note. Taken from Sierra Puerto, (2007).



Figure 32: The golden team of Hungary at the medal ceremony of Montreal 1976 Olympic Games. Note. Taken from Official Report Montreal, (1976).

In the Montreal 1976 Olympic Games, Hungary won once more the gold medal, once more while Italy winning the silver and Netherlands the bronze medals (figure 32).

In 1977 the “two referee system” has been introduced, a decision that rendered actions promoting uniform interpretation more necessary than ever. The goalie was allowed to throw the ball over half of field of play to the opponents’ four metre line. The free throw could be executed by any team member without delay, from the spot where the foul had occurred. The ball procession had been reduced from 45” to 35”secs and the exclusion time from 1 min. to 45secs. Also modified was the rule regarding the execution of the free throw immediately after the excluded player starts leaving the field of play, and now not until the excluded player actually left the field.

Evaluating the results of the rule modification in the 10 year period between 1971 and 1980 we can conclude that they were prepared entirely according to the points set down by the Bureau back in 1964. These fundamental modifications that turned the the entire game in better direction deserve an outstanding spot in the history of the game. The new rules initiated during this period ensured that the possibilities for future development of water polo more effectively than any preceding modifications.

In the Moscow 1980 Olympic Game, the Soviet Union wins the gold medal. Yugoslavia wins the silver and Hungary the bronze medal (figure 33).

The experts all over the world took advantage of these new possibilities. The game became more active, but there was a decrease in roughness during a match. In the years immediately after the rule changes, the referees also supported the coaches in their attempt to shape and improve the game. In spite of all this by the end of this period refereeing standard was becoming worst, since many times occurred misinterpretation of the rules. It is true that frequent changes create several difficulties to the referees to adapt adding the fact that double refereeing was a completely new situation for them. According to the general opinion the step toward uniform interpretation of the rules

should be the modernisation and revision of the rule book, since the correct use of actual rules should make the game more spectacular and at the same time free of brutality.

Seventh Period (1981 - 1991):

Refining the Rules – Setting the Basis for Modern and Fast Water Polo

Following the rule improvements of the past decade, various changes were introduced such as the increment of playing time to 4 x 7-minute periods instead of 4 x 5-minute periods, the possibility for the goalkeeper to score a goal and the right to have three more substitute players seating in the bench (six instead of four players). Furthermore, a uniform code for the signal of referees was introduced, helping to understand better the decisions of the referees. The rules changing for that period until 1984 served as a supplement to the significant changes of the past decade. The increasing time of the game provoke changes to the physical preparation of the teams, and to the uniform format for the signals of the referees helped the co-operation between them and the understanding for players and public.

At the Los Angeles 1984 Olympics, Yugoslavia, coached by Ratko Rudic, won the gold while the US team finished second and Germany third. The Yugoslavians' then after winning the 1986 World Championship in Madrid, they won Seoul 1988 Olympics as well, proving that the 90's was their decade (figure 34).



Figure 33: The USSR team coached by Boris Popov. Taken from Sierra Puerto, (2007).

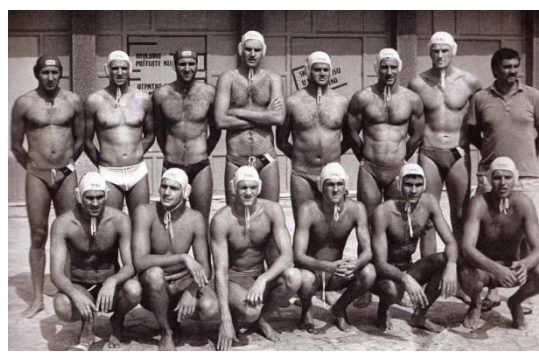


Figure 34: The National team of Yugoslavia gold winner at Madrid 1986 World Championships. Note. Taken from The Croatian Water Polo Federation, (2010).

In 1986 following the FINA Technical Congress in Madrid, several rule changes had been agreed on as well. The extra man time is reduced to 35"secs, thus the teams are forced to act more rapidly, diminishing the importance of the "man up" situations. The possibilities of the excluded player to re enter as soon as his team had recovered the ball (before the exclusion time has expired) also contribute to avoid the boring attacks with a player less. The offensive foul is not any more considered as a major foul, permitting the players to have less fear to move during the attack. The decision to not consider any more Committing ordinary fouls in a raw is not any more a major foul, changed completely the way that the attacking or defending teams were setting up their respective tactics. Generally speaking we can say that this productive period impregnates new ideas related to the future progress of the game.

In 1991, at the FINA Congress, the exclusion time had been further reduced to 20" seconds, and the excluded player can re-enter on the signal of the referee if his team recover, the ball.

Summary

Water polo began its ascent to world popularity in Great Britain, in order to relieve the monotony of swimming galas. The new Sport spread to Europe, America and to other continents becoming popular among players and spectators. The evolution of water polo, from time to time, is strongly related to the development of its rules.

References

- Amsterdam Olympic Games (1928). *Official report*. Amsterdam: The Netherlands Olympic Committee.
- Anghileri, A. (2002). *Alla ricerca del nuoto perduto*. Italy: Cassina de' Pecchi, SEP editrice S.R.L.
- Barney, R.K., & Barney, D.E. (2004). Beyond clotworthy and aquatics St. Louis 1904. *Journal of Olympic History*, 12(3), 14-23.
- Bauer, D., Drpic, A., Filic, A., & Duvnjak, I.. (2012). *A century of Croatian water polo*. Zagreb: The Croatian Water Polo Federation.
- Bijkerk, A. (1993). 1920 Women's water polo – a demonstration event. *Citius, Altius, Fortius*, 4, 25-26.
- Broadwell, A.H. (1899, September). Water polo. *Strand Magazine*, 320.
- De Handley, B.L. (1910). *How to play water polo*. New York, USA: American Sports Publishing Company
- de Handley, L.B. (1910). *How to play water polo*. New York, USA: American Sports Publishing Co.
- Dennerlein, F. (1968). *Fritz dennerlein vi insegna la Pallanuoto*. Italy: De Vecchi Editore.
- Gyarmati, D. & Csurka, G. (2006). 1956 - *Abol mi győztünk*. Budapest: Arena 2000 Kiado.
- Gyarmati, D. (2001). *Aranykor. Magyar vízilabdázás története*. Hungary: Herodotosz Könyvkiadó és Értékesítő Bt.
- Harper's Weekly New York (1891, February 28). Water polo in the Manhattan Athletic Club. *Harper's Weekly*, New York.
- Hermelin, S. & Peterson, E. (1912). *Den femte olympiaden: olympiska spelen i Stockholm 1912 i bild och ord*, Stockholm: Jacob Bagges söners aktiebolag.
- Juba, K. (2007). *A short history of water polo*. Italy: LEN.
- Karle, G., & Varga, S. (2008). *Aranyak élőben*. Hungary: Szóvilág Kft.
- Montreal Olympic Games (1976). *Official report*. Montreal: Montreal Olympic Games.
- Olympic Games Official Report. (1912). Stockholm: The Swedish Olympic Committee for the Olympic Games of Stockholm, 1912.
- Penny Illustrated Paper and Illustrated Times (1896, September). The Ravensbourne swimming club. *Penny Illustrated Paper and Illustrated Times*, 1844, 11.
- Rajki, B. (1959). *Water polo*. Hungary: Pitman Publishing Corporation.
- Rajki, B. (1985). *History of the rules*. Hungary: IPV.
- Rockwell, T. (2008). *Water warriors*. Sydney: Pegasus Publishing.
- Shepard, D.A.C. (1930). *Water Polo; The game and the rules explained*. London: Chapman & Hall, Ltd.
- Sierra Puerto, J.A. (2007). *The Spanish Olympic water polo is up to the Catalans*. Spain: Club Natación Athletic Barceloneta.
- Sinclair, A. & Henry, W. (1883). *Swimming as an art*. Boston: Little, Brown & Co.
- Sinclair, A., & Henry, W. (1893). *Swimming*. London: Longmans, Green and Co.
- Smith, R.J. (1936). *Playing and coaching water polo*. Los Angeles, California: Interscholastic Sports Publishing Co.
- Sundstrom, G. (1901). *Water polo- Spalding's Athletic Library*. New York: American Sports Publishing Company.
- The New York Times (1912, March 16). Fight in water polo game. *The New York Times*.
- The New York Times, (1908, March 29). Water polo teams in fierce contest. *The New York Times*, LVII(18327), 25.
- The New York Times. (1890, September). Ladies' day events. *The New York Times*.
- The New York Times. (1920, August 28). Crowd at Olympics boos British anthem. Victory of England in water polo game angers spectators. Apology is demanded. *The NYT Archives*.

Floating Memories: Brighton Swimming Club Archives 1860-Present

Paul Farrington

Floating Memories Project Director (UK)

Introduction: Between February 2010 - May 2011, I worked on an application to the Heritage Lottery Fund for £50K which would allow me to produce a range of outcomes for the Floating Memories project. **Method:** We have been able to properly digitise the archives of the club with an amazing camera system that is owned by East Sussex Record Office. The only challenge I faced was that no one in the Record Office could use it except me - so part of my grant allowed for staff to be trained in using the camera system. I then went on to train around 10 volunteers how to use the camera. We got the grant and since July 2011, have been busy realising the outcomes. **Results:** The outcomes are a series of around 40 oral history interviews with members of the club past and present, digitising the archives of the club, a student exhibition, a permanent exhibition, a film, a website, talks, walking tours, a catalogue and a map / guide.

Discussion: In May 2012, we are holding a series of walking tours that will allow people to walk around Brighton with a tour guide to explore the forgotten, hidden or lost sites of Brighton's swimming baths and the history of bathing. Hear tales of aquatic tea parties, and of summer days spent outside at Black Rock Lido with its sparkling seawater (filtered using cutting edge 1930s sterilisation technology). Learn about Brill's Baths, affectionately known as 'the Bunion', and find out how many swimmers in distress Captain Camp the one-legged swimming instructor rescued. To accompany the tours a map is being produced that brings this tour to life so people can follow the walks themselves. I have worked with around 10 active volunteers to research content for the map, and another few volunteers have researched the images that are also used on the map. This part of the project has been really successful, the volunteers have been amazing, and also the partners have really helped us by providing copyright free images.

Summary: For me the map was important to produce as I wanted something that would bring archive images, research, websites, swimmers memories and locations of old swimming pools together in one place. It allows people to share their lives and also it allows people to walk round their city and see what life used to be like - and what great things went on before somewhere was demolished.

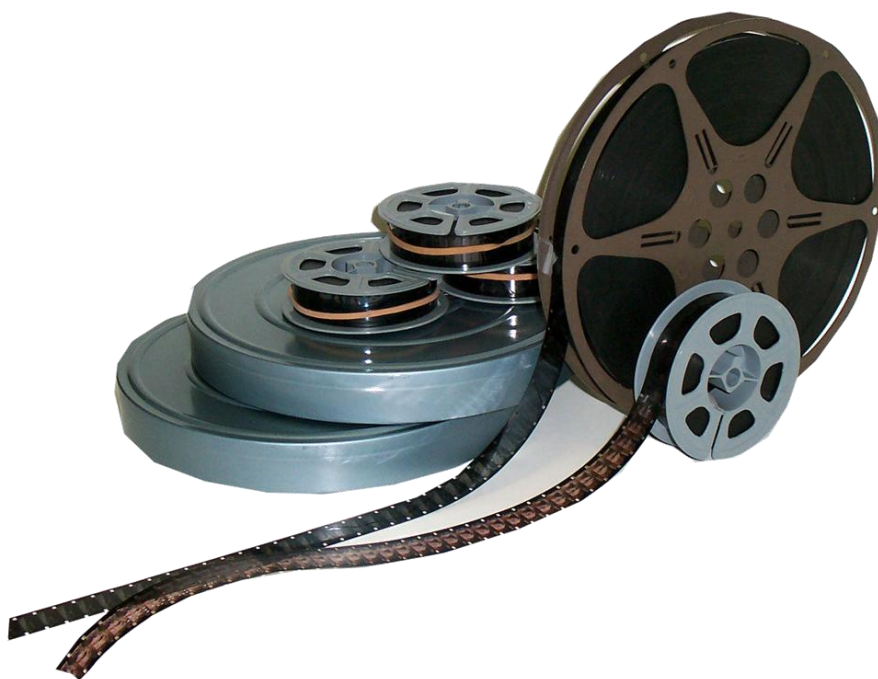


Figure 1: The Floating Memories Project poster.

References

Brighton Swimming Club (2012). *Floating Memories*. Retrieved on 22 April 2012 from <http://www.floatingmemories.co.uk/>

Cinematography



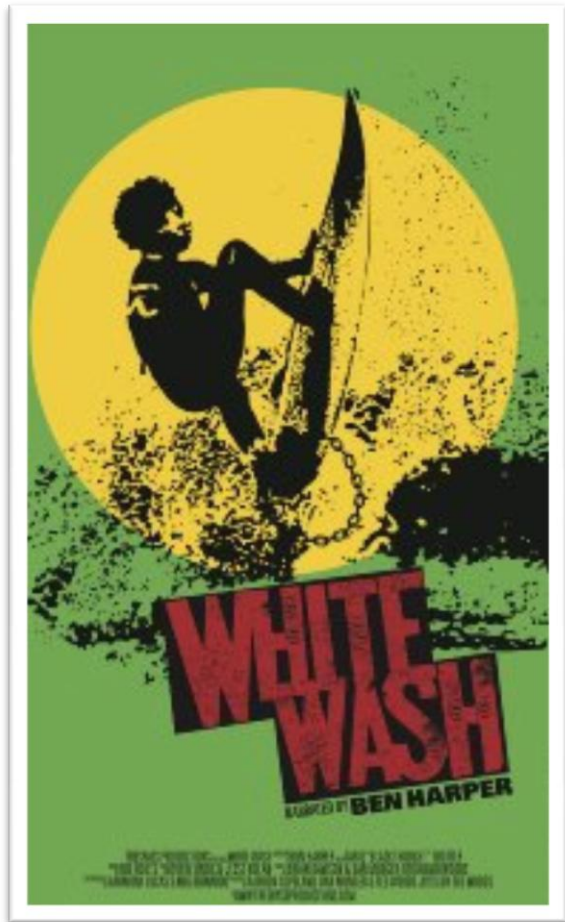
Whitewash

Ted Woods

Virgil Films & Entertainment (USA)

- ❖ **Director(s):** Ted Woods
- ❖ **Producer(s):** Virgil Films & Entertainment
- ❖ **Language:** English
- ❖ **Duration:** 75 minutes
- ❖ **Film Type:** ☐ Feature. ☒ Documentary. ☐ Training. ☐ Short
- ❖ **Contact details for purchase:** t.russellwoods@gmail.com

Film Synopsis: White Wash, the documentary, is a film exploring the complexity of race in America through the struggle and triumph of black surfers. The story is narrated by Grammy Award® winner Ben Harper with Tariq “Blackthought” Trotter of the Roots and told through the eyes of black surfers from Hawaii, Jamaica, Florida, and California. This controversial and probing film looks deep into America's painful and pervasive legacy of slavery and exclusion. From surfing's “discovery” by Captain James Cook in Hawaii in 1778 through the explosion of surf culture during the days of segregated Jim Crow America in 1960's, this film explores the myths that black surfers have overcome in their search for waves. White Wash is a story of transcendence in the face of aggression and a glimpse into the American psyche. From the shores of California, Hawaii, Mexico, and Puerto Rico to the basketball courts of New York City, through the cotton fields of the Mississippi Delta up to the ivory towers of Texas and back into the swimming pools of Florida, White Wash is a historical exploration of race, identity, and the myths we live by and that ultimately unite us all.



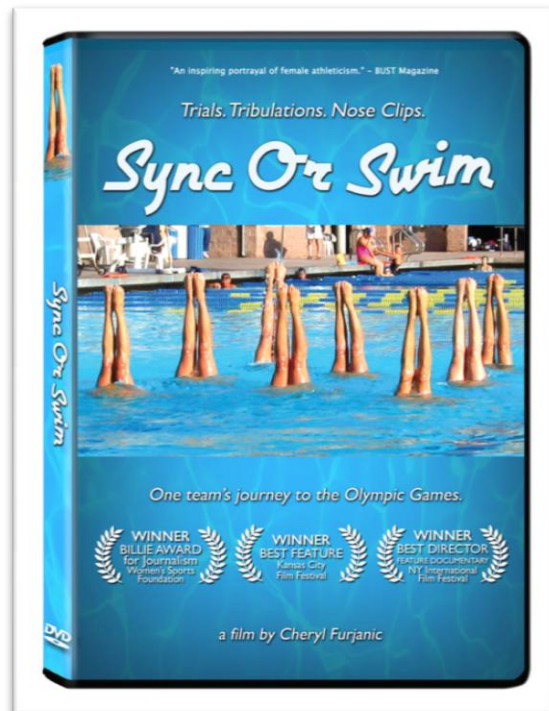
Sync or Swim

Cheryl Furjanic, Amanda Keropian

Independent Film Makers (USA)

- ❖ **Film Title:** Sync or Swim
- ❖ **Director(s):** Cheryl Furjanic
- ❖ **Producer(s):** Cheryl Furjanic and Amanda Keropian
- ❖ **Language:** English
- ❖ **Duration:** 90 minutes
- ❖ **Film Type:** ☒ Feature. ☒ Documentary. ☐ Training. ☐ Short
- ❖ **Contact details for purchase:** <http://shop.synchromovie.com/>

Film Synopsis: Dive into the world of elite synchronized swimming as dedicated young women compete for spots on the U.S. Synchronized Swimming team and train relentlessly in pursuit of an Olympic medal. *Sync or Swim* profiles hard-working athletes on a moving journey to fulfill their Olympic dreams. Day after day, these 9 swimmers hone their skills and perfect the split-second timing of their precisely choreographed routines in preparation to face their Olympic competitors. In the midst of their training, they must pull together to support a teammate who attempts to recover from an unthinkable tragedy. Juxtaposing scenes that are intense and emotional, uplifting and mesmerizing, humorous and heart breaking, *Sync or Swim* offers a candid, intimate look at this misunderstood sport that is so much more than sequins and smiles.



BACK ON BOARD Greg Louganis (Trailer)

Cheryl Furjanic

Independent Film Makers (USA)

- ❖ **Film Title:** BACK ON BOARD Greg Louganis (TRAILER)
- ❖ **Director(s):** Cheryl Furjanic
- ❖ **Producer(s):** Will Sweeney / Amanda Keropian (Co-Producer)
- ❖ **Affiliation:** Independent Filmmakers
- ❖ **Language:** English
- ❖ **Duration:** 14 minute trailer (for a feature documentary)
- ❖ **Film Type:** ☒ Feature. ☒ Documentary. ☐ Training. ☐ Short
- ❖ **Contact details for purchase:** will@louganisdoc.com

Film Synopsis: An intimate portrait of an American legend, BACK ON BOARD Greg Louganis, is a feature-length documentary that tells the life story of this four-time Olympic Champion as he returns to diving after a long period of absence. BACK ON BOARD explores the captivating, compelling, and complicated life of an Olympic star whose athletic talent spurred a worldwide fascination with diving. Part biography, part social exploration – this film reveals Louganis’ evolution from childhood diving prodigy to Olympic champion, and from pioneering openly gay athlete with HIV to an almost forgotten sports icon. BACK ON BOARD is an engrossing story about an American legend. Note: The video that will be on screen at the International Aquatic History Symposium and Film Festival is the 14 minute trailer for the feature film.



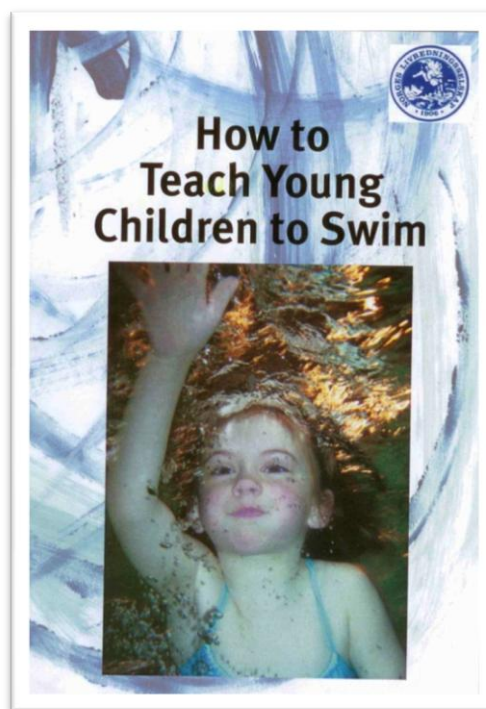
How to Teach Young Children to Swim

Terje Stakset

Norwegian Lifesaving Society (Norway)

- ❖ **Film Title:** How to Teach Young Children to Swim
- ❖ **Director(s):** Terje Stakset
- ❖ **Producer(s):** Terje Stakset
- ❖ **Language:** English
- ❖ **Duration:** 20 minutes
- ❖ **Film Type:** ☐ Feature. ☐ Documentary. ☒ Training. ☐ Short
- ❖ **Contact details for purchase:** kontoret@nls-oslo.no

Film Synopsis: "How to Teach Young Children to Swim" is a DVD that shows the progress of children from 3 years to 5 years. Learning is adapted to age and development. We must give children time, all the time they need. Children learn through play. They learn to swim on his back by waving the fish to swim and crawl through "Superman". It is not applied any pressure to teach children to swim. Children visiting the amusement park and experience an exciting river safari. When the children have found the key to flow without aid, a whole new world opens it selves to the child. Last by not least, Swimming should be fun!



On Drowning

Francesco Pia

Pia-Enterprises.com (USA)

- ❖ **Film Title:** On Drowning
- ❖ **Director(s):** Francesco (Frank) Pia, PhD
- ❖ **Producer(s):** Francesco (Frank) Pia, PhD
- ❖ **Affiliation:** Water Safety Films, Inc.
- ❖ **Language:** English
- ❖ **Duration:** 17 minutes
- ❖ **Film Type:** ☐ Feature. ☐ Documentary. ☒ Training. ☐ Short
- ❖ **Contact details for purchase:** www.Pia-Enterprises.com

Film Synopsis: The purpose of “On Drowning (1970)” was to study and record using qualitative research methodology, the movements of people actually drowning from the beginning of their plight, through their development and subsequent rescue. The majority of this 17 minute film is comprised of close-up examinations of *actual*, not staged, near-drownings and rescues. These cases include singles, doubles, triples, and a group of four.

The filming was done from a lifeguard tower at Orchard Beach located on Long Island Sound in New York City. Orchard Beach is a non-surf bathing area with little or no current. Nearly all of the near drownings and rescues occur as non-swimmers step off a low-tide shelf into deep water. Because of the low-tide drop off, the drownings and rescues are exactly the same type as found in pools, lakes, and other still water areas.

This study yielded valuable information which lifeguard services in Australia, Canada, Europe, the United States, and New Zealand have incorporated into their training programs. *On Drowning (1970)* and "*Observations on the Drowning of Non-swimmers (1974)*" were the first publications to note and explain the difference between a distressed swimmer and a drowning person. This crucial point is now recognized as one of the most important elements of lifeguard surveillance.

On Drowning is the only training aid which teaches lifeguards how to both understand and recognize the Instinctive Drowning Response. The research based recognition and rescue concepts contained in this classic teaching aid have now been incorporated into nearly all the major lifeguard training textbooks in Canada and the United State.



A Public Service Announcement about Drowning

Stathis Avramidis

International Swimming Hall of Fame (USA); Hellenic Centre for Disease Control and Prevention (Greece); National School of Public Health (Greece); Hellenic Federation for Underwater Activity and Sport Fishing (Greece)

- ❖ **Film Title:** A Public Service Announcement about “Drowning”
- ❖ **Director(s):** Stathis Avramidis
- ❖ **Producer(s):** International Swimming Hall of Fame, Hellenic Centre for Disease Control and Prevention, National School of Public Health, Hellenic Federation for Underwater Activity and Sport Fishing
- ❖ **Affiliation:**
- ❖ **Language:** English
- ❖ **Duration:** 23 seconds
- ❖ **Film Type:** ☐ Feature. ☐ Documentary. ☐ Training. ☒ Short
- ❖ **Contact details for purchase:** Not for sale. <http://youtu.be/KLgy5UqvVHM>

Film Synopsis: This short video is an initiative of a group of organizations that aimed to raise public awareness about drowning prevention primarily in Greece and secondarily in other countries. The film starts with a quote made by the film director who is also the 2009 recipient of the Aquatic Safety award from the International Swimming Hall of Fame, Dr Stathis Avramidis: “drowning is a leading cause of death worldwide”. Pictures accompanied by short text inform the viewers that drowning episodes have been presented through historical, mythological, religious, the film industry and contemporary life narrations and episodes. About one million people drown annually around the world or, i.e., about one person dies by drowning every 30 seconds. Finally, the video encourages the viewer not to become such statistic but to learn how to avoid becoming one. The film is approved by the International Swimming Hall of Fame (USA), the Hellenic Centre for Disease Control and Prevention (Greece), the National School of Public Health (Greece), and the Hellenic Federation for Underwater Activity and Sport Fishing (Greece). Its Greek version has got approval by the Greek National Council for Radio and Television, to be aired nationally in various TV channels across Greece during the period 1st May – 1st August 2012.



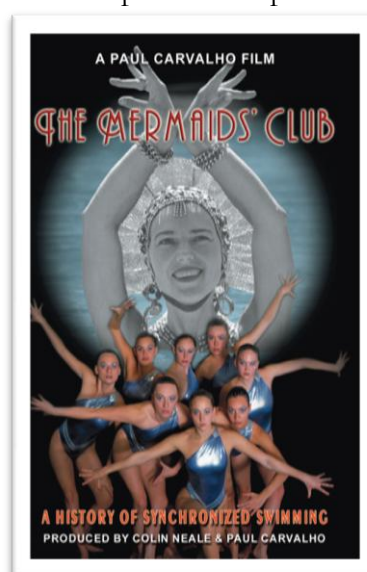
The Mermaids' Club – A History of Synchronized Swimming

Paul Carvalho

Perception Films (USA)

- ❖ **Director(s):** Paul Carvalho
- ❖ **Producer(s):** Paul Carvalho
- ❖ **Affiliation:** Perception Films
- ❖ **Language:** English
- ❖ **Duration:** 50 minutes
- ❖ **Film Type:** ☒ Feature. ☒ Documentary. ☐ Training. ☐ Short
- ❖ **Contact details for purchase:** perception-films@sympatico.cav

Film Synopsis: The Mermaids' Club is the first documentary ever to explore the birth and early evolution of synchronized swimming in North America. What was a college exercise in the 1920's becomes a water show and eventually takes shape as a competitive world sport. We are guided in this journey by the sport's foremost historian, Dawn Bean, herself the captain of the first team to receive a gold medal at an international event, half a century ago. The first championship featuring synchro figures was held in Montreal in the 1920's – and the winner was Canadian swimmer Peg Seller, who would become a celebrated pioneer of the sport. Meanwhile, in Chicago, the American coach Kay Curtis was working with students at two local colleges, adding music to rhythmic exercises. The sport saw its official birth at the Chicago World's Fair of 1933, where the Kay Curtis Modern Mermaids created an enormous stir with daily shows featuring some thirty performers swimming to the music of a live band. But it was Hollywood star Esther Williams that first made synchro popular in North America and around the world. In «Mermaids» Esther, aged 81, sits by her pool in Beverly Hills and reminisces about the enormous popularity of her water films, and their impact on the fledgling sport. But she also realizes that her show-business image inadvertently held back the sport as it struggled for Olympic recognition. We also meet Beulah Gundling, the winner of the first gold medal ever granted to a solo synchro swimmer at an international event – the 1955 Pan American Games in Mexico City. As the camera rolls, Beulah opens a dusty suitcase and smiles as she examines a number of extravagant swimsuits. Then, at the age of 84, Beulah shows she is still capable of swimming a solo – to the sound of her own castanets! The film then takes us to the moment the sport had awaited for decades – its acceptance into the Olympics, at the 1984 Los Angeles Games. Canada's Carolyn Waldo and the American champion Tracie Ruiz recall that moment of triumph for the sport. All through the documentary we also follow a young swimmer preparing for a major synchro competition. She is Canada's Anouk Reniere Lafreniere, a world champion who at the age of 18 has accumulated 140 medals. Anouk gives us a sense of how much effort and dedication are needed to excel at this difficult sport, and how competitive it has become with the emergence of superb teams in Russia and Japan. The Mermaids' Club has it all – the stars and champions that shaped the sport, exclusive and rare photos and footage, elegantly-staged re-creations, and a spectacular opening show created especially for this film.



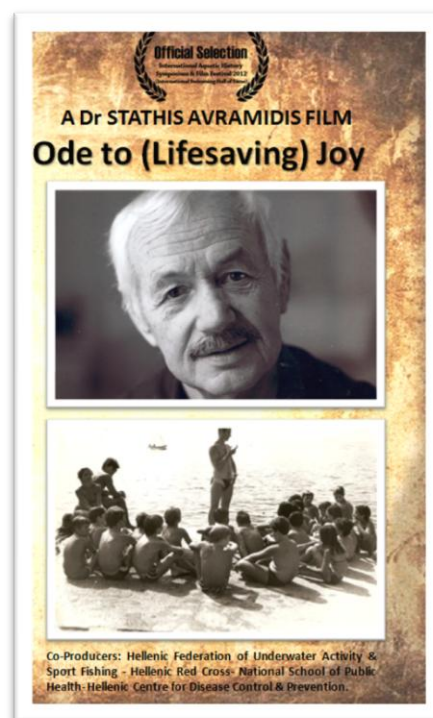
Ode to (Lifesaving) Joy

Stathis Avramidis

Hellenic Centre for Disease Control and Prevention (Greece); Leeds Metropolitan University (UK); The Lifesaving Foundation (Ireland)

- ❖ **Film Title:** Ode of (Lifesaving) Joy
- ❖ **Director(s):** Stathis Avramidis
- ❖ **Co-Producer(s):** Hellenic Federation for Underwater Activity and Sport Fishing, Hellenic Red Cross, National School of Public Health, Hellenic Centre for Disease Control and Prevention, Ministry of Education (School Advisor in Physical Education B Athens)
- ❖ **Language:** English
- ❖ **Duration:** 9.5 minutes
- ❖ **Film Type:** ☐ Feature. ☐ Documentary. ☐ Training. ☒ Short
- ❖ **Contact details for purchase:** Not for sale.

Film Synopsis: This short documentary film is the first motion picture attempt of Dr Stathis Avramidis as director and screenwriter. It aims to overview the lifetime achievements and obstacles, as well as to pay a tribute to the pioneer of Hellenic lifesaving, Mr Lucas Bistarakis. The documentary is supported with four commentaries of people that worked, or were associated with Lucas. Rare pictures and selected video clips make the narration an emotional “journey”, not only for those that were fortunate to know Lucas personally, but also to those that will watch it and know him for first time. This short film aims to pay a tribute to a pioneer whose work transformed water safety in Greece. Lucas Bistarakis was born in 1941 and learned swimming in an animal water trough and dreamed to be a lifeguard. In nearly 50 years, Lucas revolutionized both lifesaving and lifeguarding with his activities. Like all pioneers, he made dedicated friends and several adversaries. Today, he is known as the “*father of Hellenic lifesaving*”.



Five Minute Scanning Strategy

Tom Griffiths

Aquatic Safety Research Group, LLC (USA)

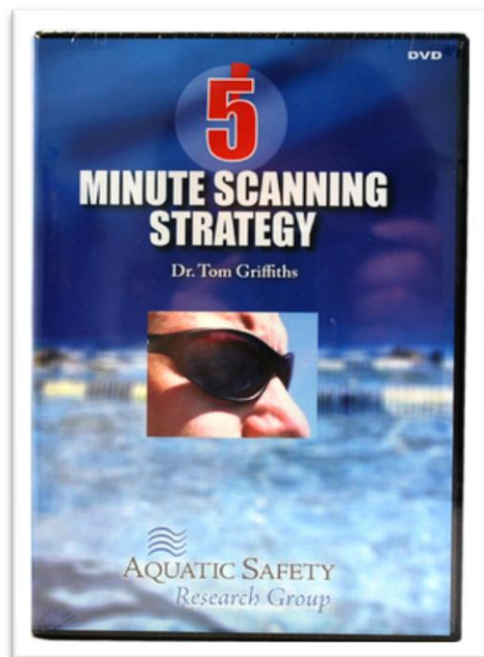
- ❖ **Film Title:** Five Minute Scanning Strategy
- ❖ **Director(s):** Tom Griffiths, Ed.D.
- ❖ **Producer(s):** Christopher Fagan
- ❖ **Affiliation:** Aquatic Safety Research Group, LLC
- ❖ **Language:** English
- ❖ **Duration:** 10 minutes
- ❖ **Film Type:** ☐ Feature. ☐ Documentary. ☒ Training. ☐ Short
- ❖ **Contact details for purchase:** www.AquaticSafetyGroup.com
TomGriffiths@AquaticSafetyGroup.com, (814) 321-5242

Film Synopsis: Based on years of scientific research and studies done with thousands of lifeguards across the world, Tom Griffiths, Ed.D. president and founder of Aquatic Safety Research Group, LLC has developed a systematic approach to lifeguard surveillance called The Five Minute Scanning Strategy®.

Physiological and psychological research has shown that after 15 minutes of performing a simple task, an individual's performance on that task gets worse. The Five Minute Scanning Strategy® helps lifeguards improve concentration and attention while reducing boredom by changing the mental process every five minutes. Lifeguards must count the people in their zone each time they change their posture or scanning strategy (every five minutes).

The Five Minute Scanning Strategy® is based on physiological and psychological responses along with research that shows what many experienced lifeguards have already been doing to stay alert.

This technique is now required by all 35,000 Ellis Associates lifeguards worldwide. The Five Minute Scanning Strategy® video makes the difficult task of teaching and learning the scanning process much easier and enjoyable.



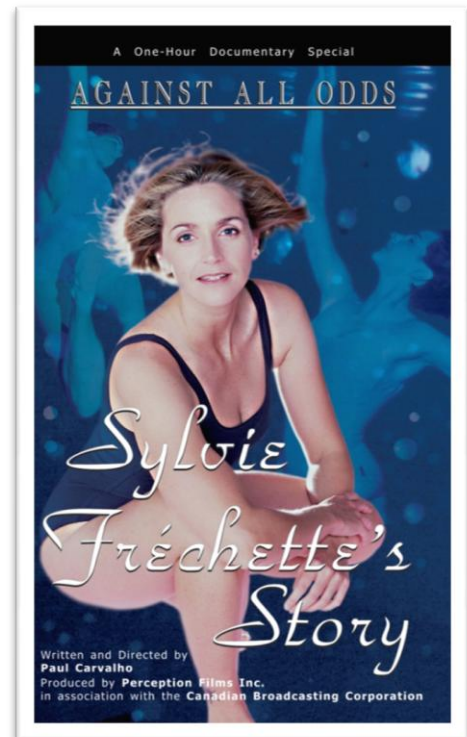
Sylvie Frechette: Against All Odds

Paul Carvalho

Independed Filmmaker (Canada)

- ❖ **Film Title:** Sylvie Frechette: Against All Odds
- ❖ **Director(s):** Paul Carvalho
- ❖ **Producer(s):** Paul Carvalho
- ❖ **Affiliation:** Independed filmmaker
- ❖ **Language:** English
- ❖ **Duration:** 60 minutes
- ❖ **Film Type:** ☒ Feature. ☒ Documentary. ☐ Training. ☐ Short
- ❖ **Contact details for purchase:** Paul Carvalho perception-films@sympatico.ca

Film Synopsis: “*Sylvie Frechette: Against All Odds*” is the truly incredible story of Canada’s best-known and best-loved Olympic synchro champion. Struggling emotionally after the loss of her father in a traffic accident when she was a child, Sylvie finds comfort and strength in the discipline imposed by the sport. A coach spots her talent and they build a deep friendship. Sylvie shoots for Olympic gold in solo synchro. But three days before the Olympics begin, Sylvie’s live-in boyfriend commits suicide in their home. In the single most crucial moment of her life, Sylvie decides that she will compete. What happens at the Olympic pool is even more incredible...



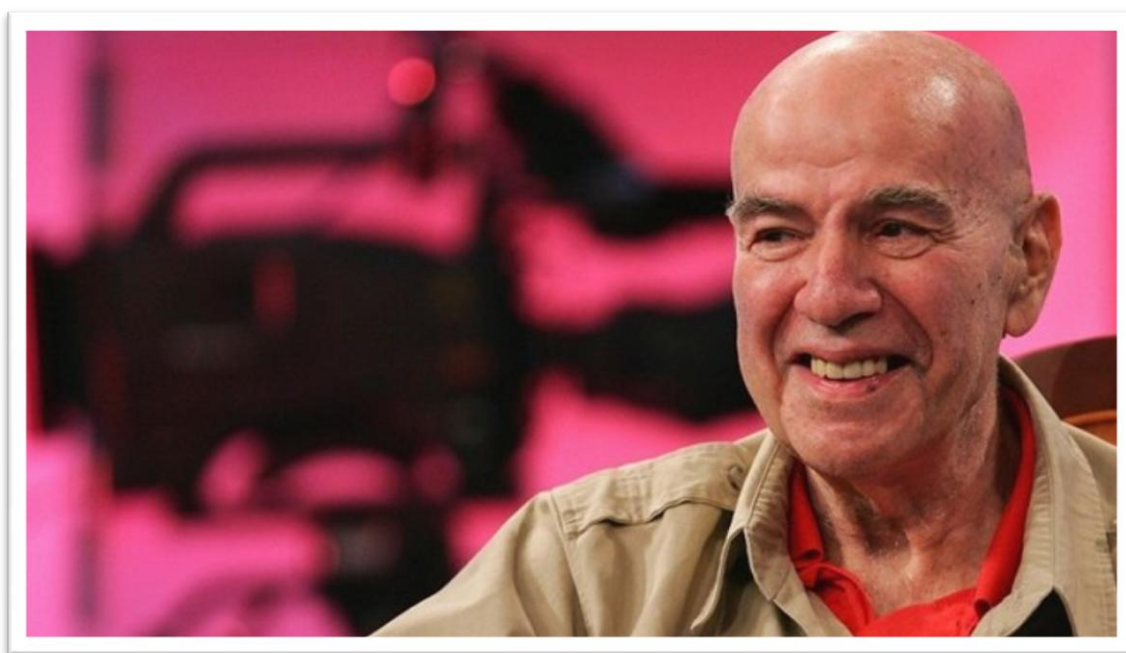
The Best Aquatic Stories of Bud Greenspan

Nancy Beffa

Cappy Productions (USA)

- ❖ **Film Title:** The Best Aquatic Stories of Bud Greenspan
- ❖ **Director(s):** Bud Greenspan
- ❖ **Producer(s):** Cappy Productions
- ❖ **Affiliation:** Cappy Productions
- ❖ **Language:** English
- ❖ **Duration:** -
- ❖ **Film Type:** ☐ Feature. ☒ Documentary. ☐ Training. ☐ Short
- ❖ **Contact details for purchase:** n/a

Film Synopsis: When the world thinks of the Olympic Games and sports hero's documentaries, it thinks of Bud Greenspan and Cappy Productions. Bud has been called the foremost writer/producer/director of sports films and one of the world's leading sports historians. His numerous Awards include seven Emmys, the George Foster Peabody Award for Life Time Achievement, the Directors Guild of America Life Achievement Award and the coveted Olympic Order presented by International Olympic Committee President Juan Antonio Samaranch for his contribution to furthering the Olympic movement. During the International Aquatic History Symposium and Film Festival, we will screen some of Bud's documentary films.



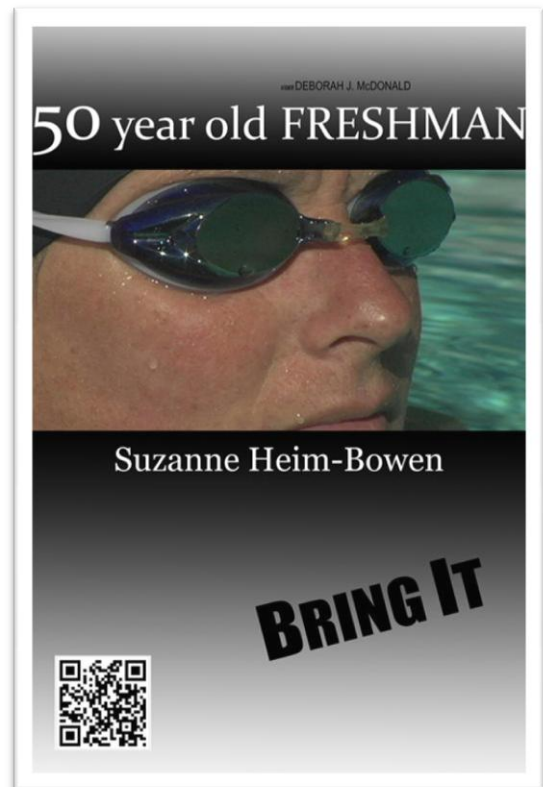
50 Year Old FRESHMAN Suzanne Heim-Bowen

Deborah Mc Donalds

Independent Film (USA)

- ❖ **Film Title:** 50 year old FRESHMAN Suzanne Heim-Bowen
- ❖ **Director(s):** Deborah J. McDonald
- ❖ **Producer(s):** Deborah J. McDonald
- ❖ **Affiliation:** Independent film
- ❖ **Language:** English
- ❖ **Duration:** 54 minutes
- ❖ **Film Type:** ☒ Feature. ☒ Documentary. ☐ Training. ☐ Short
- ❖ **Contact details for purchase:** deborahjmcDonald@gmail.com

Film Synopsis: A 50 year old woman tries to survive the grind of competition and the disadvantages of age when a perennial college swimming powerhouse, Diablo Valley College, recruits her to compete against swimmers who are 30 years younger. The film chronicles that record smashing season and explores International Masters' Swimming Hall of Famer Suzanne Heim-Bowen's open water exploits during the 30 years leading up to the 2009 DVC swim season.



The Sunshine Olympics 1912

Jens Lind

Jens Lind Production AB (Sweden)

- ❖ **Film Title:** The Sunshine Olympics 1912
- ❖ **Director(s):** Jens Lind
- ❖ **Producer(s):** SVT
- ❖ **Affiliation:** Jens Lind Production AB
- ❖ **Language:** English
- ❖ **Duration:** 1 hour 6 minutes
- ❖ **Film Type:** ☐ Feature. ☒ Documentary. ☐ Training. ☐ Short
- ❖ **Contact details for purchase:** svtsales@svt.se

Film Synopsis: In 1912 Stockholm was host for the Olympic summer Games. “*The Sunshine Olympics 1912*” tells the story of the games in Stockholm, at the time the biggest and most successful sporting event ever arranged, and perhaps the game that saved the whole Olympic movement. Stockholm was the only applicant for the games and the successful weeks in Stockholm 1912 became a turning point for the Olympic founder Pierre de Coubertin’s grand idea. The 1912 Games is considered the first modern Olympics with electronic timing, photo finish and film rights that were sold exclusively. The Stockholm Olympics became a blueprint for the future, IOC president Jacques Rogge says. The film focuses on three main characters from different parts of the world: Jim Thorpe, the native American who is one of sport history’s greatest athletes. His life is a moving tale of rise and fall. He won the pentathlon and the decathlon in Stockholm, was celebrated with a parade on Broadway, but was then disqualified for professionalism. Kennedy Kane McArthur, an unemployed postman from Northern Ireland, emigrated to South Africa 1901 and won a gold medal for his new homeland in 1912. McArthur triumphed in the marathon, one of the toughest races ever held. Greta Johansson, the first female Swedish Olympic gold medalist, then only 17 years old. Her victory came in diving, from the 10 meter platform. She overcame not only her opponents but also a compat resistance to women’s sport.



Parting the Waters (Trailer)

Josh Waletzky, Jenny Levison

Do Tell Productions (USA)

- ❖ **Film Title:** Parting the Waters
- ❖ **Director(s):** Josh Waletzky, Jenny Levison
- ❖ **Producer(s):** Jenny Levison, Josh Waletzky
- ❖ **Affiliation:** Do Tell Productions
- ❖ **Language:** English
- ❖ **Duration:** 7 min.
- ❖ **Film Type:** ☐ Feature. ☒ Documentary. ☐ Training. ☐ Short
- ❖ **Contact details for purchase:** jenny@dotellproductions.com

Film Synopsis: More than 50 years after landmark civil rights decisions opened schools and voting booths, fewer than 1% of competitive swimmers in the U.S. are black and Latino. PARTING THE WATERS is the story of African-American Olympic swimmers Cullen Jones and Maritza Correia, and the young black and Latino swimmers coming up behind them — as they challenge stubborn myths, fears, and stereotypes, to break down the last vestiges of segregation in the United States. Parting the Waters is an intimate film with broad social reach – showing us how sports have the power to transform individuals, who in turn transform society.



The 200m Breaststroke in 1936

Bruce Wigo

International Swimming Hall of Fame (USA)

- ❖ **Film Title:** The 200m Breaststroke in 1936
- ❖ **Director(s):** Bruce Wigo
- ❖ **Producer(s):** International Swimming Hall of Fame
- ❖ **Affiliation:** International Swimming Hall of Fame
- ❖ **Language:** English
- ❖ **Duration:** 2 minutes 50 seconds
- ❖ **Film Type:** ☐ Feature. ☐ Documentary. ☐ Training. ☒ Short
- ❖ **Contact details for purchase:** Not for sale www.ishof.org ,
<http://www.youtube.com/watch?v=l-R4wiSZcRc>

Film Synopsis: The 1936 Olympic final of the 200 meter breaststroke showcased three distinct styles of swimming the stroke at the time. American, John Higgins demonstrated the butterfly arm pull with the frog kick. Hamuro and Koike of Japan, and Sietas of Germany all used the traditional head-up breaststroke. Ito of Japan used a full arm pull with underwater recovery. After the war, the breaststroke used by Higgins was the preferred style. It wasn't until after the 1952 Olympic Games that butterfly became a distinct stroke.



The Olga Dorfner Vase

Bruce Wigo

International Swimming Hall of Fame (USA)

- ❖ **Film Title:** The Olga Dorfner Vase
- ❖ **Director(s):** Bruce Wigo
- ❖ **Producer(s):** Bruce Wigo
- ❖ **Affiliation:** International Swimming Hall of Fame
- ❖ **Language:** English
- ❖ **Duration:** 3 minutes 30 seconds
- ❖ **Film Type:** ☐ Feature. ☐ Documentary. ☐ Training. ☒ Short
- ❖ **Contact details for purchase:** Not for sale. www.ishof.org
<http://www.youtube.com/watch?v=6ifgCo6EWIA>

Film Synopsis: The first men's swimming national championship was held in 1876, under the auspices of the New York Athletic Club. It wasn't until 1916 that the first national championship recognized by the AAU was held for women. The sport was swimming and the first female national champion was Olga Dorfner, winner of the Vase at the Sutro Baths in San Francisco, CA. This short film tells the story of the Olga Dorfner Vase.



The Tomb of the Diver

Bruce Wigo

International Swimming Hall of Fame (USA)

- ❖ **Film Title:** The Tomb of the Diver
- ❖ **Director(s):** Bruce Wigo
- ❖ **Producer(s):** Bruce Wigo
- ❖ **Affiliation:** International Swimming Hall of Fame
- ❖ **Language:** English
- ❖ **Duration:** 3 minutes
- ❖ **Film Type:** ☐ Feature. ☐ Documentary. ☐ Training. ☒ Short
- ❖ **Contact details for purchase:** Not for sale. www.ishof.org
<http://www.youtube.com/watch?v=wTP5SXRpxdE>

Film Synopsis: The ancient city of Paestum, Italy is the home of the oldest image of a swimmer or diver in Greek Art, dating to 575 BC. Bruce Wigo, President/CEO of the International Swimming Hall of Fame, visited the place and explores to what is known as the Tomb of the Diver.



The Etruscan Tomb of Hunting and Fishing

Bruce Wigo

International Swimming Hall of Fame (USA)

- ❖ **Film Title:** The Etruscan Tomb of Hunting and Fishing
- ❖ **Director(s):** Bruce Wigo
- ❖ **Producer(s):** Bruce Wigo
- ❖ **Affiliation:** International Swimming Hall of Fame
- ❖ **Language:** English
- ❖ **Duration:** 3 minutes
- ❖ **Film Type:** ☐ Feature. ☐ Documentary. ☐ Training. ☒ Short
- ❖ **Contact details for purchase:** Not for sale. www.ishof.org
<http://www.youtube.com/watch?v=f1YvCraNFx8&feature=related>

Film Synopsis: The oldest representation of swimming in western art is found in the ancient Etruscan city of Tarquinia, about 100 km northwest of Rome, Italy. Found in an Etruscan tomb dating to the sixth century BC. Bruce Wigo, President/CEO of the International Swimming Hall of Fame, visited the place and explores to what is known as the Tomb of the Diver.



Rice and Roses presents Coach Sakamoto (1984)

Chris Konybeare

Hawaii Public Television (USA)

- ❖ **Film Title:** Rice and Roses presents Coach Sakamoto
- ❖ **Director(s):** Chris Konybeare
- ❖ **Producer(s):** University of Hawaii - West Oahu
- ❖ **Affiliation:** Center for Labor Education & Research
- ❖ **Language:** English
- ❖ **Duration:** 30 minutes
- ❖ **Film Type:** ☐ Feature. ☒ Documentary. ☐ Training. ☐ Short
- ❖ **Contact details for purchase:** N/A.

Film Synopsis: This film presents details regarding Coach Sakamoto's 3 year swim club on Maui, Hawaii. It particularly explains how and why training took place in the Maui Ditches, and how the group became known as the Maui Ditch Kids. The film covers the period from 1937 to 1940 pointing toward the 1940 Olympic Games.



Presenter's Index

During the inaugural IAHSFF 2012 the following people presented their work either in the forms of oral or poster presentation, film, book signing and exhibition. Without them the event of IAHSFF would not be possible. These people, in alphabetical order, are:



Shaun Anderson, MBA, BS is Co-Founder of Diversity in Aquatics, a non-profit organization whose mission is to save lives and reduce the incidence of drowning through global efforts. He is a faculty member in the Department of Health, Physical Education and Exercise Science at Norfolk State University, USA Swimming staff member, and avid swimmer. He earned his MBA from California State University-Long Beach, and BS in Kinesiology from Penn State. He highlighted water safety around the globe by establishing May 15th as International Water Safety Day. Shaun is a spokesperson on diversity and aquatic safety dedicated to helping develop programs for under-served communities throughout the country. Shaun@diversityinaquatics.org



Dr Stathis Avramidis, BEd, MSc, PhD conducts research on drowning prevention, rescue and treatment as Associate of the Hellenic Centre for Disease Control and Prevention (Greece), Visiting Research Fellow of Leeds Metropolitan (UK) and Task Force Member of the Lifesaving Foundation (Ireland). One of the most prolific water safety authors, he has written 14 books and over 250 publications or conference presentations on aquatics and safety. He was honored in 2009 with the International Swimming Hall of Fame's Paragon Award for outstanding contributions in Aquatic Safety, and received 32 awards in 8 countries for his work. S.Avramidis@leedsmet.ac.uk



Eleftheria Avramidou DipEd, BEd, BSc is a graduate of Leeds Metropolitan University in Sport and Exercise Science, and Athens University in Sport Science-Physical Education. She is a swimming and fitness personal trainer working with VIP adults and children, and a gym instructor in Grand Resort Lagonissi. Eleftheria has co-authored 2 books on lifeguarding and baby swimming and several publications in conferences and aquatic magazines and journals. She has been honored several times in numerous countries and is a 25-time national champion in swimming and fin swimming in Greece. Eleftheriaavramidou@hotmail.com.



Dave Barney has coached interscholastic sport for more than half a century. He is an emeritus member of the English faculty and 2009 Hall of Fame Honoree at Albuquerque Academy in New Mexico, where he was varsity boys and girls swim coach for more than forty years. He is a 2009 New Mexico High School Coaches Association Hall of Famer, a 1996 Member of the Albuquerque Sports Hall of Fame, a 2000 University of New Mexico's Athletic Hall of Famer, and in 2006 became one of the the National Interscholastic Swim Coaches Association's first David H. Robertson National Honor Coaches. Barney is currently head coach of the Charger varsity swim teams. He is an internationally recognized authority in the sport and frequent speaker. He lectured at the International Symposium for Olympic History last summer in Beijing. Dave is a member of the ISHOF's Selection Committee, and his sports and aquatics writing has appeared

in numerous publications. Barneyd@aa.edu



Robert K. Barney, PhD is professor Emeritus at the University of Western Ontario, in London, Canada. An American citizen, he served four years in the United States Air Force during the Korean Conflict. He was a three sport athlete as an undergraduate at the University of New Mexico where he earned his PhD in 1968. He has published some 300 sport history pieces in his career, focused primarily on the Modern Olympic Movement, including: “*Selling the Five Rings: The IOC and the Rise of commercialism*” (2002), and “*Tarnished Rings: The IOC and the Salt Lake City Bid Scandal*” (2011). A former President of the North American Society for Sport History, Barney founded the International Centre for Olympic Studies in 1989, was awarded the Olympic Order in 1997, and received the Pierre de Coubertin Statue in 2008.

Rkbarney@uwo.ca



Robert E. Beach, BA, LLB The Honorable Robert E. Beach is a 1948 graduate of the Army and Navy Academy, Carlsbad, CA. He is a University of Tampa and Stetson College of Law graduate. He practiced law for nine years, and became a Florida Circuit Court Judge in 1968. With Captain Ransom Arthur, MD, Beach helped establish United States Masters Swimming (USMS). He was the first Vice Chairman of USMS in 1971, and received the prestigious Captain Ransom J. Arthur Award in 1986. He completed the Alcatraz Island Swim, swam across Lake Michigan, and in a 1980 attempt to swim the English Channel, came within two miles of France when currents forced him to stop. Beach holds 22 Masters All-American honors from 1984 to 2011 and eight All Star Team honors from 2000-2011. At age 81, he continues to participate and promote Masters Swimming.



Dawn Pawson Bean authored “*Synchronized Swimming, an American History*” in 2004. In 1963 she founded “*Synchro*”, the first magazine devoted entirely to the sport of synchronized swimming, and continued as its editor and publisher for 30 years. A National and Pan American Games champion, head coach for three nationally ranked clubs from 1951-1983, Dawn has coached Masters synchronized swimmers to 13 national championships and many world titles since 1992. A national and international judge, she has authored chapters of U.S. and FINA judging manuals and numerous teaching articles. She served as President and Olympic International Chairman for United States Synchronized Swimming, served on the U.S. Olympic Committee and was competition director for synchro at its inaugural competition at the 1984 Olympic Games. Rdbean@earthlink.net



Lisa Bier is a social sciences librarian at Southern Connecticut State University in New Haven, CT. She wrote and published two books, “*American Indian and African American People, Communities, and Interactions: An Annotated Bibliography*”, and “*Fighting the Current: The Rise of American Women’s Swimming, 1870-1926*”- a riveting tale of American women struggle against cultural norms such as modesty law restrictions which required cumbersome and restrictive suits, along with lack of instruction led to countless drownings of women and their children. Bier chronicles the national learn-to-swim movement which gripped the country, drastically reducing such deaths. She writes about the “amateur movement” of the 1880’s in which athletes like Gertrude Ederle, the first woman to swim the English Channel in 1926, in record breaking time changed history. Bierl1@southernct.edu



Paul Carvalho is a Montreal-based documentarist who has authored nearly twenty hour-long documentaries over the last decade. Locations span from Harlem to London, Las Vegas to Rio, the heart of Africa to Alaska to the Canadian Arctic. Paul's films have been broadcast on such stations as Japan's NHK, France's ARTE, the Australian Broadcasting Corporation, the Planet Green cable channel, PBS and virtually all the major Canadian stations. Paul is currently writing, directing and producing the first-ever 5-hour documentary series on the history of Montreal for Radio-Canada. He is a Harvard University Nieman Fellow whose work includes profile pieces of *Margaret Trudeau*, *Sylvie Frechette*, *Norval Morrisseau*, *Guido Nincheri* and *Paul Sauvé*. His recent film, *Black Wave, The Legacy of the Exxon Valdez* was nominated for two *Gemini* and two *Gemeaux* awards and won a *Gemini* for best director. Paulcarvalhofilms.com



Dr Chrysoula Chairopoulou, PhD, MA, Post Graduate Certificate, is a certified Synchronized Swimming Coach in the USA, and works as Associate Professor of Synchronized Swimming at the University of Athens. She served as Technical Advisor of the Greek Swimming Federation, 1988-2004, and Competition Manager in Synchronized Swimming during the Athens 2004 Olympic Games. Dr. Chairopoulou is a Member of Technical Synchronized Swimming Committee (LEN, 2004-2012), and a member of the Greek Olympic Team during the Barcelona Olympics (1994). She was a member of the Greek National Swimming Team and National Champion in the 100m and 200m backstroke (1965-1973). She has authored one book and many journal articles in synchronized swimming. cchairop@phed.uoa.gr



Ioanna Christodoulaki, PhD, MSc is a graduate of the Department of Physical Education and Sport Science of the National and Kapodestrian University of Athens in 2004. In 2009 she graduated from the National Kapodestrian University of Athens postgraduate program with an MSc in Aquatics and Adapted Aquatics. In 2011 she was accepted into the PhD program on the faculty of aquatics coaching. Ichristodoul@phed.uoa.gr



John Connolly is a retired Irish primary school head teacher. His lifesaving career spans over 40 years during which he founded two lifeguard clubs and has served as President of the Royal Life Saving Society in Ireland (RLSS IRELAND) and Director of The RLSS Irish Lifeguard School. He is founder and voluntary CEO of The Lifesaving Foundation (www.lifesavingfoundation.ie) a charity devoted to promoting water safety worldwide, especially in developing countries, and the organization of an annual drowning research conference. He has received many awards including Honorary Life Membership of the RLSS Commonwealth. lifesavingfoundation@ireland.com



Murray Cox was thrown into the deep end of a pool in Sydney Harbour as a child and has been swimming ever since. He balances a career as a landscape gardener by washing off the dust surfing and ocean swimming. He's not a particularly good swimmer, just persistent. Last season he swam part of the Sydney coastline each weekend, this season it's around Sydney Harbour. It's a way of paying respect and getting better acquainted with his home city. He records his slow journey on swimsydney.com. All that physical activity is balanced by long sessions on the lounge reading the classics, history and popular

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Kevin Dawson, PhD is an assistant professor of history at University of Nevada, Las Vegas. He received his Ph.D. from the University of South Carolina in 2005. He was a 2004-2005 Ford Dissertation Fellow. Dr. Dawson's research analyzes how members of the African diaspora recreated aspects of their African heritage in the Americas and Europe. Field and archival research have been conducted in West Africa, Barbados, and throughout the United States. He published "*Enslaved Swimmers and Divers in the Atlantic World*" in *The Journal of American History* (March 2006). He is currently working on a book titled "*Enslaved Watermen in the Atlantic World, 1444-1888*", which considers how slaves transmitted African maritime skills to the Americas and how they shaped the social, cultural and economic development of the Americas. A side project considers how concepts of cleanliness and hygiene shaped perceptions of race of civilization.

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Barbara Dunbar is the office and financial manager for her husband's firm and previously was a laboratory research assistant. She has a Bachelor's degree in Biology from the University of California, San Diego, and a Masters degree in Immunology from the Medical University of South Carolina. Barbara has volunteered for and competed in Masters swimming since 1975. She was inducted into the International Swimming Hall of Fame as an Honors Masters Swimmer in 2000 and was inducted into the International Masters Swimming Hall of Fame in the inaugural class of 2003. Current volunteer services include Chair of the San Diego-Imperial Local Masters Swimming Committee, Vice Chair of the United States Masters Swimming History and Archives Committee, and a member of the USMS Records and Tabulation Committee. She continues to donate her time as a certified swim official, a meet manager, and as SI LMSC Registrar and performs many other volunteer functions at the local level for her community and for Masters swimming. DunbarLaw@aol.com



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Cheryl Furjanic is an award-winning filmmaker who has been teaching documentary production at New York University for over a decade. She is currently directing "*Back On Board*", a feature documentary about the life and legacy of Olympic champion diver Greg Louganis. Her first feature documentary "*Sync or Swim*" (2008), received numerous awards, including a Billie Award for Journalism from the Women's Sports Foundation, and is now available on DVD and iTunes. Her short documentary and fiction films, which range in length from 30 seconds to 13 minutes, have screened at 100+ festivals worldwide and on television. Cheryl holds a BFA in Film & Television Production from NYU's prestigious Tisch School of the Arts and a Masters degree from NYU's Interactive Telecommunications Program.

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Paul Farrington. All year round sea swimmer and graphic designer, Paul leads Studio Tonne, whose eclectic portfolio has included interactive screen-based solutions for Moby and Depeche Mode, print work for the RCA and large scale installations for Imperial College London. Trained as a graphic designer at the Royal College of Art, Paul works in the spaces between art, illustration, identity, publication, website, music, sound toys, exhibition and public space design. His work has been shown at events and festivals such as Mutek (Canada), Transmediale (Berlin), Lovebytes (UK), Sonar (Spain), Ars Electronica (Vienna), Sintensi (Naples), Domus Academy (Milan), Experimenta (Lisbon) and the Kulturhuset (Stockholm). studio@studiotonne.com



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Toshiaki Goy, Ed.D is Professor of Health & Physical Education (Aichi University of Education, Japan), and President of Japanese Society of Sciences in Swimming and Water Exercise. He has been involved in biomechanics of swimming by using VCR analysis for 2D and 3D motion captures as titled Dual Scaling Analysis for Information of Awareness and Magnitude of Force in Glide Swimming. Recently, he is also interested in Water Safety Culture and the "Can you Swim" project with NZ, AUS, NOR, JPN and wrote article as "Real and Perceived Swimming Ability, Perceptions of Drowning Risk among Teachers College Students". tgoya@aecc.aichi-edu.ac.jp



Tom Griffiths, Ed.D. has been an Aquatic Safety Specialist for 40 years, including his position as the Aquatic Director and Safety Officer for Penn State University from 1986 to 2009. Dr. Tom has written seven books, created four videos, wrote hundreds of articles, invented numerous products and has been featured in several segments in television and radio, including the Discovery Channel and Inside Edition. Dr. Tom is the founder and president of the Aquatic Safety Research Group, LLC. He conducts research, creates videos, educates and speaks, sharing his expertise as a successful professional to help others gain success. Tomgriffiths@aquaticsafetygroup.com



Amanda Keropian, a Southern California native, graduated from NYU's Tisch School of the Arts in 1998. Since then, she has worked with actor, director/producer Rob Morrow at his film and TV production company Bits & Pieces Picture Co. working on such projects as the feature film "*Maze*" and the CBS series "*NUMB3RS*". Most recently, Amanda produced, with fellow NYU Alum, Cheryl Furjanic, the award-winning feature documentary "*Sync or Swim*", an inspiring behind-the-scenes look at the Olympic journey of the U.S. Synchronized Swimming Team.



Charles R. 'Chuck' Kroll began his Professional Aquatic career over 38 years ago as a \$1.50/hour Lifeguard and Swim Instructor in Beaverton, Oregon. After creating the now 25 year old Lake Washington Lifeguard Challenge Cup competition he began researching the history of lifeguards and lifesaving in the United States in 1986. Looking for items to illustrate a book led to finding other items (over 15,000) in the world of swimming/aquatics, and a library of over 1400 volumes. His 'Antique Aquatic Americana Collection' may be the world's largest private collection of such memorabilia. His work has helped illustrate "*Pools*" by Kelly Klein 1992, "*SPLASH: Aquatic Shows A-Z*" by Robert E. Kerper Jr. 2002 and "*SWIM Why we Love the Water*" by Lynn Sherr. In the mid 1980's, he brought the United States Lifesaving Association to the Pacific Northwest. While consulting the Jantzen Swimwear company in 1992-93, he originated Nike Swim, and helped begin relationships with United States Synchronized Swimming and AVP professional volleyball players Nancy Reno and Carolyn Kirby. Chaskroll@msn.com



Jenny Levison (Producer, Co-director, Writer) is a screenwriter, playwright, film producer and social justice activist. Jenny has worked for Red Fire Films (Sacred Stage: The Mariinsky Theater); Schulberg Productions (Nuremberg: Its Lesson for Today); and Sara Colleton (The Painted Veil). Her short films "*Copy Shop*" and "*Sorry!*" were produced by Stonestreet Studios, and her vampire romantic comedy "*You're So Vein*", has been optioned by JVision Productions. She produced "*Nuestras Voces Se Levantan para la Justicia*", a CD of Mexican and Mexican-American labor music and the national satiric media campaign Billionaires for Bush (or Gore). Jenny holds a BA in Anthropology from Bates College, and an MFA in Dramatic Writing from NYU Tisch School of the Arts (Richard Wesley, Chair.) jenny@dotellproductions.com



Jens Lind is a Swedish TV-producer who lives in Stockholm where he has his own production company. He specializes in documentaries about sport and has received several international awards. Jens has covered Olympics Games since 1988 in Seoul and will be a reporter for Swedish Television this summer in London. Jens has lived in Los Angeles and Sydney. "*The Sunshine Olympics 1912*" will be aired on Swedish TV, SVT, on May 27. Jens.lind@mac.com



Atsunori Matsui is an Associate Professor at Naruto University of Education, in Tokushima, Japan. He specializes in sports biomechanics and swimming, teaching in swimming, water polo, and various aquatic activities. He is in charge of swimming education at the teacher training university for 25 years. Matsui was a goalkeeper at Tsukuba University Water Polo Team, one of the Japanese top teams. Matsui is an expert of swimming technique, instruction method, curriculum and administration as well as the representative Manager of the Society of School Swimming. Matsui@naruto-u.ac.jp



Deborah J. Mc Donald. After jumping off the corporate ladder and doing a freefall into film school, Deborah J. graduated Cum Laude and with Distinction as a Director with a Bachelor of Fine Arts from the Academy of Art University in San Francisco and she's achieved both popular and critical acclaim for her work. In 2005 she took NATPE international gold for a commercial campaign that she wrote, directed and produced and was a finalist for best commercial of the year at Filmfest. In 2006 she was profiled on the FOX prime time special "*The Fine Line On Design*" and in April 2012 her documentary "*50 year old FRESHMAN: Suzanne Heim-Bowen*" won the Best Sports/Outdoor Feature award at the Indie Spirit Film Festival. Deborah J. has received the CJOH Television screenwriting grant, Executive Produced and hosted her own cable access show, worked with Producers on American Idol for two seasons and produced hip-hop music videos for San Francisco Bay Area artists such as E-40 and Kafani. She also holds a Bachelor of Arts in Political Science from the University of Toronto and is a Canadian Chartered Accountant (Ernst & Young Toronto). deborahjmcDonald@gmail.com



Iwona Michniewicz, PhD, is a researcher in the area of water and social safety. She works at the Higher Vocational State School in Kalisz and teaches at the Faculty of Sports and Recreation. She has been a lifeguard for 28 years. She has conducted several research studies on lifesaving and authored the book "*Small Social Projects*". She is an expert in non-governmental organizations activity and transversal cooperation as well as a permanent trainer at several physical and cultural organizations nationwide. Iwonakalisz@wp.pl



Romuald Michniewicz, PhD, is a scientist dedicated to drowning prevention and equipment solutions which will ensure lifeguard and swimmer safety. He authored the dissertation: "*Expertise and skills of lifeguards in the view of rescue action structure*", in addition to many research studies, and the book "*Small Social Projects*". Michniewicz has been a member of the Volunteer Lifeguards Association for 26 years. He has trained a number of lifeguards, and worked at the Higher Vocational State School in Kalisz and as a lecturer at the Physical Education, Medical Rescue and Physiotherapy faculties. He is an Expert Witness in the area of water rescue. Iwonakalisz@wp.pl



Kevin Moran is a Principal Lecturer in Health and Physical Education in the School of Curriculum and Pedagogy at the Faculty of Education, University of Auckland. Kevin has had a lifelong commitment to drowning prevention as a researcher and an educator. He has been a frontline surf lifeguard for almost 50 years, still currently patrolling one of New Zealand's rugged west coast beaches at Muriwai, near Auckland. He is a member of the International Lifesaving Federation (ILS) Research and Information Committee, a Co-chair of the International Task Force on Open Water Drowning Prevention, a foundation member of the New Zealand Drowning Prevention Council, and Chairman of Watersafe Auckland Inc (WAI). His recent publications include studies on: toddler parent perceptions of CPR and drowning prevention; parental supervision of children at beaches; lifeguard CPR knowledge and beliefs; rock fisher water safety; defining swimming ability in the context of drowning prevention, and high risk behaviours among youth around water. k.moran@auckland.ac.nz



Eileen O'Connor PhD, conducts research in the history of medicine, leisure and sport, and recently co-edited a thematic issue on the History of Sport Medicine (2011). Eileen completed her PhD in History at the University of Ottawa, where she is now Associate Professor in the School of Human Kinetics, and Affiliate Scientist at the Institute of Population Health. Current research includes a social history of the public baths in Canada. She has been honored with receiving the National Capital Educators' Award (2010), the University of Ottawa CSL Professor of the Year Award (2009), and the Faculty of Health Sciences Excellence in Teaching Award (2007).

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Stavros Patrinos, MSc is a graduate of the Athens University Nursing and Athens Medical School. Stavros currently works as a biostatistician in the Surveillance Department of the Hellenic Centre of Disease Control and Prevention (HCDCP). With 14 publications and conference presentations related to surveillance, he started working as a water safety biostatistician two years ago, with HCDCP colleague, Stathis Avramidis. He was awarded the "Best Poster Presentation Award 2011" from the Lifesaving Foundation in Ireland.

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Craig R. Perlow graduated from Cornell University with a B.S. in Hospitality Management in January of 1976. For several years in the early 2000s, Craig was listed on the International Olympic Committee Website as 1 of just 9 "*Experts of the International Olympic Memorabilia Federation*" and THE "*Expert*" on Olympic Bid Pins. With over two dozen articles in Olympic collectors' publications in the USA, Australia, Canada and the UK, Craig launched his website, OlympianArtifacts.com, in 1998 and self-published a book, "*The Perlow Guide To Olympic Bid Pins: 1960 – 2016*", in 2006, available in 20 countries. Coca-Cola chose him as a Salt Lake 2002 Olympic Torchbearer and as the Pin Trading Coordinator in Salt Lake City during the 2002 Olympic Winter Games. Craig is a Lifetime Member of both the International Society of Olympic Historians and the Olympin Collectors Club and is a member of the Board of Directors of the latter. He serves as the Olympic Collections Consultant for the International Swimming Hall of Fame. Craigatl@mindspring.com



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Francesco ("Frank") Pia is a school psychologist who has a Ph.D. in Interdisciplinary Studies with a concentration in psychology, human factors and public health. He has over four decades of experience in drowning accident causation and reconstruction. During this time he has lectured to federal, state, county, and local agencies on the causes and solutions to swimming, non-swimming, and boating related drowning fatalities. He worked for 21 seasons as a lifeguard and chief lifeguard at Orchard Beach, Bronx, NY, where approximately 2,000 near drownings and rescues occurred each summer. He is the originator of the Distress vs. Drowning person categorical classification, conducted the original research on the Instinctive Drowning Response, produced and directed the films "*On Drowning, Drowning: Facts & Myths*", and "*The Reasons People Drown*", and developed the RID Factor for analyzing the causes of swimming related drowning fatalities. He is a member of the American Red Cross' Scientific Advisory Council, served as a technical advisor for the past and current American Red Cross' lifeguard and lifeguard manager publications, was a member of the United States Lifeguard Standards Coalition, and currently serves on the CDC's Model Aquatic Health Code bather supervision subcommittee. frankpia@optonline.net



Robert Pruter: BA, Roosevelt University, 1967; an MA degree in history, with honors, Roosevelt University, 1976; and an MLIS from Dominican University, 2000. This academic preparation led to more than 27 years career as an encyclopedia editor in the social sciences at Standard Educational Corporation and more than ten years as a librarian at Lewis University. His writing and research career has been motivated by his lifelong love both for the history of sports and for the history of African-American music as they relate to his hometown of Chicago. He wrote the books "*Chicago Soul*", University of Illinois Press, 1991 (Certificate of Excellence for scholarly works from the Illinois State Historical Society, 1992; and the ARSC Award for Excellence in Historical Recorded Sound Research 1992); "*Doonop: The Chicago Scene*", University of Illinois Press, 1996 (ARSC Award for Excellence in Historical Recorded Sound Research, 1997), and "*The Rise of High School Sports in America and the Search for Control, 1880-1930*", Syracuse University Press (2012 forthcoming). pruter@comcast.net



Hiroyasu Satake is a professor at Senshu University, in Tokyo, Japan, where he specializes in cultural anthropology, sports anthropology and swimming history. He is a manager at Senshu University Swimming Team, one of the top teams in Japan. He has been continuing his research on the relationship between human beings and water. His field specialty is the Middle and Near East, Central Asia and Japan. In 2009, Satake published a book, "*Supotsu No Genryu*". Satake@isc.senshu-u.ac.jp



Lynn Sherr's new book, *"Swim: Why We Love the Water"*, has been called "a love-letter to swimming," a "joyful plunge into [its] history, lore and legends." A broadcast journalist and writer, she has been swimming since she was a toddler, learning first by watching frogs in a Pennsylvania lake. She has since expanded both her strokes and her waterways. For more than thirty years, she was an award-winning correspondent for ABC News. Her other books include *"Tall Blondes: A Book About Giraffe"*; *"Outside the Box: A Memoir, and Failure Is Impossible: Susan B. Anthony in Her Own Words"*. She lives in New York. Lynn@lynnsherr.com



John R. Spannuth became interested in aquatics more than seventy years ago when he nearly drowned and subsequently learned to swim, joined a swim team, and enjoyed teaching swimming. He has worked as a lifeguard, camp waterfront director, and pool manager before becoming an aquatics director, a collegiate swim coach, and a swimming coach for the Phillips 66 Splash Club in Bartlesville, Oklahoma. John has made presentations for over 50 years on physical education, recreation, and aquatics, and as President of the American Swimming Coaches Association, he formed the committee for "Swimming for Older Ages" which emphasized the benefits of physical fitness and regular swimming for "older people." In 1970, he organized and directed The First Annual National Masters Swimming Meet which included less than 55 men and women, and he was instrumental in getting the National AAU to officially accept Masters swimming as a recognized and official national program in 1971. Since 1971, John has held important positions including AAU National Aquatics Administrator and International Executive Director for the Special Olympics and has organized and directed various aquatics events including: The National Aquatics Summit, The National Aquatics Directors Conferences, The National Adapted Aquatics Summit, the 1969 World Swimming Coaches Clinic, the First National YMCA Masters Aquatic Championships, the First National Masters Synchronized Swimming Championship, and Who's Who in Aquatics. john@uswfa.org

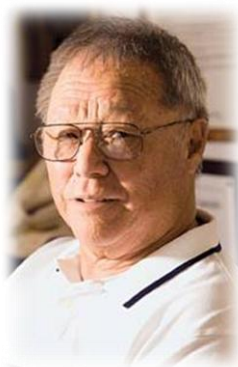


Terje Stakset has been an instructor in swimming and life saving for 29 years and a teacher of baby swimming for 23 years. Moreover, he train instructors in swimming, baby swimming, lifesaving, CPR and first aid. For 7 years he was the Vice-President of the Norwegian Lifesaving Association. He have presented at 4 WABC conferences. In 2002 he produced the baby swim video *"The Truthful Face of Baby Swim"*. In June 2006 he completed a second DVD titled: *"How to Teach Young Children to Swim"*. In 2006 he was honored with the "Virginia Hunt Newman International Award" in the Swimming Hall of Fame. In August 2012 he will publish the book *"Swim With Love"*. tstakset@gmail.com



Dr Nikos Stavropoulos Ph.D. was born in Athens, Greece. He studied librarianship at the Technological University of Athens, political sciences at Panteio University of Athens, physical education and sports science at the University of Athens, and received his PhD from the University of Cultural Technology & Communication of Aegean in Lesvos. Nikos is a teacher of new referees in FINA, LEN clinics in "Psychology of Officiating" and "Pre Game Training". He prepared the material for a FINA CD and DVD which will be used in Clinics worldwide. He is the Director of the Sports University Library

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Richard "Sonny" Tanabe. An All-American at Indiana University and member of the 1956 US Olympic Swimming Team, Sonny Tanabe is one of Hawaii's greatest swimmers and legendary free diver and spear fisherman. His books include "*Spear Fishing on the Island of Hawai'i: A Pictorial History*" and "*The Evolution of Freediving & History of Spearfishing in Hawaii*". Sonny is founder and President of the Hawaii Swimming Hall of Fame and President of the Hawaii Chapter of the U.S. Olympians.
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Zaharias Vlantis is an assistant physiotherapist specialising in sports physiotherapy. He holds a BSc in Nursing and a HND as Assistant Physiotherapist-Kinesiotherapist and is currently studying towards a BSc in Physiotherapy at the AKMI Metropolitan College. He has worked as an assistant physiotherapist in professional practices alongside top Sports physiotherapists. Vlantis has practiced in Karolinska Institute Stockholm, Athens Military Hospital, Athens Laiko Hospital, Athens Medical Group and other hospitals and clinics.
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Josh Waletzky (Director, Co-producer, Editor) has created an extensive body of documentary work including Academy Award-nominated Music for the Movies: “*Bernard Herrmann*”, as well as “*Image Before My Eyes*”, “*Partisans of Vilna*”, “*Sacred Stage: The Mariinsky Theater*”, and, most recently, collaborated on “*Nuremberg: Its Lesson for Today*” [The Schulberg/Waletzky Restoration]. As an editor, he has worked on A.C.E. Eddy Award-winning “*The Endurance: Shackleton's Legendary Antarctic Expedition*”, Emmy Award-winning “*In the Fiddler's House and She Says: Women in News*”, Peabody Award-winning “*Liberty!*”, and “*Shaker Heights: Struggle for Integration*”. Josh is a graduate of Harvard College and received an MFA from the NYU Graduate Institute of Film and Television. josh.waletzky@yahoo.com



Dr Nancy B. White, Ph.D. has worked to enhance the effectiveness of swim instruction programs, training of aquatic staff members, and evaluation of lifeguard rescue readiness throughout her career. She has been an instructor/instructor trainer in lifeguarding and water safety for over twenty-five years and served as a long-term member of an aquatic risk management team of evaluators (“Red Shirt Committee”) in Albuquerque, New Mexico. She has published papers related to safety and risk management in aquatic and other recreational settings and is a frequent speaker at professional meetings and conferences. Nancy is an Assistant Professor at California State University, East Bay and the Summer Session Aquatic Co-Director at the Albuquerque Academy Barney Natatorium. nancy.white@csueastbay.edu



Bruce Wigo, J.D. has been the innovative and tireless President and Chief Executive Officer of the International Swimming Hall of Fame since 2005. His love of history predates his undergraduate minor in history at the University of North Carolina and the research and writing skills he learned from Widener Law School. As steward of ISHOF's memorabilia collection and editor of ISHOF's annual yearbook, he is regarded as one of the world's leading experts in world swimming history and has personally researched and visited many of history's most revered swimming sites such as Paestum, Tarquinia, Rome and Pompeii in Italy, Xian in China, Bath in England, to name a few. Much of his research has been published in ISHOF's annual or in a self-published book “*The Golden Age of Swimming: A Picture History of the Sport & Pools That Changed America*”, and in a paper he will present for the first time at this symposium on the little written about topic of “*Native American Swimming Skills Before and After The Arrival of the Europeans*.” Bwigo@ishof.org



Janet Wilson Janet is a retired Biomedical Scientist, specializing in Blood Transfusion, and working for 34 years in the National Health Service, U.K. She has had a lifelong association with the Royal Life Saving Society, U.K. and has served on several of its committees, contributing to many of its publications. She is an active National Trainer/Assessor with a special interest in training lifeguards and outdoor water safety and first aid to interested groups. Her other interests include Long Distance Swimming and Walking, where personal achievements include Loch Lomond (22 miles) and an ascent to Everest Base Camp. janetwilson22@aol.com



Meegan Wilson is the Aquatic Director at the 300 Club, Inc., a private swim and tennis club in Gainesville, FL. She has a Bachelor of Science degree in Biology from Purdue University, where she previously conducted basic research on vision for 14 years. Meegan started swimming Masters in 1984 and continues to compete and volunteer in the United States Masters Swimming (USMS) program. She is currently Chair and Webmaster of the Florida Local Masters Swim Committee, Chair of the USMS History and Archives Committee and a member of the USMS Legislation Committee. meeganwilson@bellsouth.net



Ted Woods, Filmmaker. Ted grew up outside Chicago. He began his work as a documentarian during his undergrad at Fordham University in New York City where he received his B.A. in Peace and Justice Studies. While there he traveled and did research throughout Africa, Latin America, Cuba, and the Caribbean. Upon graduation he did work documenting Cuban Hip-Hop and presented his research to the American Anthropology Association. He then moved to Los Angeles to begin work in the film Industry and studied film at UCLA. t.russellwoods@gmail.com

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