



Biomechanics: Computer Theories Work for Everyone

Dr. Gideon Ariel, the 38-year-old former Olympic performer who is touching off a sports revolution



Code	adi-pub-01251
Title	Biomechanics: Computer Theories Work for Everyone
Subtitle	Dr. Gideon Ariel, the 38-year-old former Olympic performer who is touching off a sports revolution
Name	Detroit News
Author	Jim Bena
Published on	Tuesday, August 2, 1977
Subject	ACES; APAS; Baseball; Biomechanics; Exercise Machine; Favorite; Golf; Legal; Media; Performance Analysis; Science; Shoes; Sports; Tennis
URL	https://arielweb.com/articles/show/adi-pub-01251
Date	2013-01-16 15:40:51
Label	Approved
Privacy	Public

Dr. Gideon Ariel, a former Olympic performer, is revolutionizing sports with his computerized analysis of athletes. Ariel's system involves breaking down high-speed film and charting the movements of an athlete's body joints on a computer. This process, known as biomechanics, is making a significant impact on the sports world and beyond. Ariel believes that the human body can be studied like a machine to maximize performance. His work has been recognized by the U.S. Olympic teams and the business world, including professional sports. Ariel has also been involved in legal cases, proving that injuries were not the fault of exercise equipment. Despite the potential for profit, Ariel is more interested in his work than its money-making potential.

This PDF summary has been auto-generated from the original publication by arielweb-ai-bot v1.2.2023.0926 on 2023-09-28 03:43:22 without human intervention. In case of errors or omissions please contact our aibot directly at ai@macrosport.com.

Copyright Disclaimer

The content and materials provided in this document are protected by copyright laws. All rights are reserved by Ariel Dynamics Inc. Users are prohibited from copying, reproducing, distributing, or modifying any part of this content without prior written permission from Ariel Dynamics Inc. Unauthorized use or reproduction of any materials may result in legal action.

Disclaimer of Liability

While every effort has been made to ensure the accuracy of the information presented on this website/document, Ariel Dynamics Inc. makes no warranties or representations regarding the completeness, accuracy, or suitability of the information. The content is provided "as is" and without warranty of any kind, either expressed or implied. Ariel Dynamics Inc. shall not be liable for any errors or omissions in the content or for any actions taken in reliance thereon. Ariel Dynamics Inc. disclaims all responsibility for any loss, injury, claim, liability, or damage of any kind resulting from, arising out of, or in any way related to the use or reliance on the content provided herein.

Below find a reprint of the 1 relevant pages of the article "Biomechanics: Computer Theories Work for Everyone" in "Detroit News":

Biomechanics: Computer Theories Work for Everyone From Olympic Stars to Thoroughbreds

Second of two parts

BY JIM BENICICH

From Sports Illustrated

FLINT—Dr. Gordon Arlitt, the 35-year-old former Olympic jumper who is leading off a sports medicine unit in his computerized analysis of athletes, believes his system is so advanced that he could overcome the work of great masters on the video by taking a film of the athlete and charting it on a computer. He would then hold a two-hour video to show the master's movements and reproduce the same.

"I can put a whole airplane back just by knowing the inside," he says in an audience of 150 Flint. "A specific athlete can't make the same mistake in two different ways."

Arlitt's process of breaking down high-speed film and charting the essential body angles of a person in computerized language is more than the sports world, which is the No. 1 interest area of the Institute, innovative former football players and coaches who are now in American cities.

In Arlitt's contention, the human body is structured in many ways like a machine, so it can be studied like a machine in order to get maximum performance. His field is called biomechanics.

"Here in Flint," he told his audience in the automobile producing city, "we are using part of a machine. We could study your motions (they're not perfect on a car) and help them as well as their engineers."

He also told how he was brought into the legal case almost a year ago when Johnny Carson was injured on a short hand and cost for \$5 million. Arlitt was brought in to prove that it wasn't the fault of the exercise book, his side work.

He talks of working with diabetes by giving them an exercise program to accelerate their processes and a computerized weight watching program.

He even goes as far as going to do a biomechanical study of sex. He said he had active Computerized Biomechanical Analysis, for example, in Atlanta, where, he says, he has enough potential that he can say, "When Ford came up with a car, he said just one product. When Xerox came along, they were selling one product. We are selling life."

"I think this (business) has the potential to be the biggest cooperation ever."

Arlitt, in his talks, however, seems more fascinated in his work than money-making potential. "We are using the marketing area in our company," he says. Right now, there are only a dozen owners to look off what many sports figures in the U.S. are calling "a revolution."

Part of the problem says Medical Arlitt is he geared to his research and interest in sports.

His work with the U.S. Olympic team is becoming nationally known, but his work is also becoming known in the business world, including professional sports.

Just the other day, he was in Seattle to make a presentation to the NBA Superstars, where owner Sam Schulman had heard of Arlitt through the work he did in designing a machine to improve jumping ability for Schulman's Uplander Gym Equipment Company.

"Gordon did an excellent job on anything about biomechanics," said Frank Fortado, the team's 46-year-old manager, who has a training background. "It's not an engineer, and the principles of engineering are basically those of human motion, and that there can be applied to humans by the computer."

ACCORDING TO FORTADO, who attended the meeting with the team's general manager, coach and player personnel chief, Arlitt "like does more than of basketball players and showed the engineering factors in shooting jump shots and free throws. He tried to explain the way the ball follows through the hoop and that important to the maintenance of the shot and how to study the angle of release of the shot."

More important to Fortado was Arlitt's work in the area of power training and injuries.

Smith, the 7-foot center who was with the Los Angeles Lakers in the 1970s, says "I've never seen him since I got well and light, so he had difficulty getting his feet all the way up in the air when he ran. Consequently, Smith ran often on the balls of his feet and was constantly off-balance."

A piece of material was slipped into Smith's shoes at the computer.

For this and other corrective work he has done through computer arlitt, it is evident why one of the major shoe companies (Pony) related to Smith, age 41, he now produces.

After hearing the 1 1/2-hour presentation, Fortado was clearly impressed.

"Gordon Arlitt has opened up new horizons in sports preparation and conditioning, and in the teaching of skills," Fortado said. He thought that athletes would be Arlitt's first, they see it through engineering methods.

Fortado said he was going to recommend that the Seattle retain Arlitt, Owner Schulman already did that way.

Schulman told me, "I did this team's free throw shooting could be increased 10 percent, we would win the championship," Arlitt said.

THE SENIORS aren't the only team with enough foreboding to appreciate Arlitt's talents (though when he was in Flint, a friend contacted the major professional Detroit teams, and contact people they differed). Arlitt has done work with the football Dallas Cowboys, the basketball Chicago Bulls as well as the Lakers, and the baseball Chicago White Sox's owner George Halas, who was an engineering student in college.

"I think in every year film — he is very helpful," Arlitt said.

His father happened into by designing a machine for his hip that improved the shock at the 42-year-old runner's knee.

With the Cowboys, Arlitt helped correct offensive lineman Marked Wright's knee injury and analyzed the team's kicking.

With the Royals, he worked with one big-league pitcher on their motions, explaining to them that the pitcher's work motions they had been doing for years would improve them "about two or three percent" while a program he designed would help 1,000 percent.

Arlitt has studied golfers ("The best ones aren't the ones who follow through but the ones who slow down just before making contact with the ball") and tennis (though he doesn't know how to play, he said he is setting up the most sophisticated tennis center ever with pro McBratney, he believes he has developed a hockey theory that players should slow their play about a half a foot behind the puck.

He studied some of Seattle Super's races and noticed that the horse's feet were running at different angles when he finally won.

At the time, Arlitt's mind is in a flood, opening out innovations on the spur of the moment during conversations with associates.

Where will it all end? Fortado, for one, says sports better appreciate Arlitt now because "business will let him up so he'll be won't have time for sports."