

Rick McKinney

# The United States Archery Team - The Beginning Years

Dear Reader,

I was reading an article entitled "The Downfall of Sports Science in the United States" in Volume 17, Issue No. 4 of Olympic Coach (available free from the USOC) and there on the article's first page was Chris Shull shooting his bow in a laboratory (right). The photo recalled another photo I saw in Rick McKinney's book "The Simple Art of Winning" (see the then rather hirsute McKinney at the right). There were about 25 years between the two pictures and what disturbed me was that I didn't have access to the findings of either of those two studies or any of those that had occurred in between. As Mark Twain said, "It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so." As a coach, I want to know what such studies showed and yet none of them were anywhere I could find. I asked a medical researcher to search collegiate data bases using appropriate keywords and he came up with very little information. So, I asked Rick McKinney if he could get us started reconstructing the attempts to study scientifically the art of shooting a bow. Here's the first of what we hope are many articles on this topic.

Editor

Some time ago, I was approached by *Archery Focus* magazine to give some history of the United States Archery Team (USAT) and their scientific research efforts made in the 1980s. Although the USAT is not what it used to be, it can still be a strong force if guided correctly.

In 1980, I was voted onto the National Archery Association's Board of Governors as the Active Athlete Representative. This was a new position and it carried a two year term while the



Photo of Chris Shull "The Downfall of Sports Science in the United States" in Volume 17, Issue No. 4 of Olympic Coach (available free from the USOC).

rest of the Board members had four year terms. During this time the Board was working on creating the United States Archery Team. It was the brain child of Bob Ryder and Steve Lieberman. One part of the Board wanted the USAT to be a fund raising arm while the other wanted the USAT to be a training program that helped develop our archers to greater heights than before.

At my first Board meeting I was chosen to work with Mr. Ryder on setting up the first NAA U.S. Testing Group training camp. It was an honor and I was more than enthusiastic to be a part of that effort. Here was a chance to make our teams stronger than ever before with the help of the United States Olympic Committee and the NAA. When I got home I started sending ideas and suggestions to Mr. Ryder who appeared to be very busy with many other Board items, family, work, etc. After continuing to "badger" Mr. Ryder into doing something, he suggested that since I had so much motivation why didn't I just manage the program and he would just observe. I jumped at the chance.

I contacted the USOC and asked for guidance as to what we could do at the Colorado

Springs Olympic Training Center. They gave me information on the Sport Science Program and all that it entailed. Since I was going to Arizona State University at the time and studying physical education I was learning about biomechanics, physiology, psychology, and psychophysiology. I was able to blend the two programs together to enhance the USAT testing group training camp.

I met with Dr. Charles Dillman who at that time was head of the Biomechanics Department at the United States Olympic Training Center (USOTC) in Colorado Springs. He was very enthused to help guide us in our studies of biomechanics and archery. We discussed force platforms, high speed filming, Selspot analysis, and electromyography. He suggested that I get in touch with Dr. Dan Landers at Arizona State University (ASU) since he was in my local area.

I met with Dr. Landers who was one of the leading sport scientists in the nation. He was also very interested in being a part of our program. You may be wondering why he was so interested. Well, at that time, it appeared that universities were trying to find ways to fund studies for graduate student earning either Master's or Doctorate degrees. Combining resources with the United States Olympic Committee was an excellent opportunity to help their students find a quality study and was also networking for the university. It wasn't too bad for archery as well.

Next, I visited Dr. Topper Haggerman who was the head of the Physiology Department at the USOTC. We discussed items that would enhance athlete's performances and ways to test various parts of human anatomy that would give us good indicators as to what makes a top archer different from an average one. The tests recommended were cardiovascular fitness, heart rate, percent body fat, and strength. Although rather basic tests were used, these items provided quite interesting and educational results. Some were significantly advantageous to elite archers.



*The Author wired up in 1981 at Hokkaido University in Japan. (from p. 60 in The Simple Art of Winning).*

Dr. Landers helped establish mental testing to identify the differences between top archers and average archers. Many of these tests were general tests but, again, proved to be very important to our archers in increasing their performances.

Our first training camp was in the late fall of 1981. The top 10 male and top 10 female archers were there to find out what this program was all about. We brought in Al Henderson, the 1976 Olympic Coach and Bud Fowkes, the 1972 Olympic Coach. All of the sport scientists were at this event running their tests. While some archers were being tested the

rest of us were having round table discussions about form, attitude, training, nutrition, equipment, coaching, archers from other countries and their methods of shooting, and just about everything and anything you can imagine. The enthusiasm was so tremendous that the archers just could not get enough. By mid-week we realized that we were running out of time so we rescheduled our meetings to start at 6 AM. They often went late into the evenings.

Although the tests were slow to provide results, the group sessions, discussions and just frank talking were so successful that everyone left the camp feeling motivated to get ready for the next season of competition. At the end of the camp, we listed all of the coaches we knew about within NAA circles and asked the archers to list others they feel that have helped them. They then were asked to choose three coaches they would like to see at the next camp. Thus, with a democratic process the archers started warming up to coaches and the coaches started getting an opportunity to show what they could do for the archers. I doubt that many realized how much animosity there was between coaches and elite archers of this era. Of the 20 archers at the first camp, there was only one archer who claimed to have a personal coach. Just a couple of camps later that trend had reversed itself so that all but one had a coach!

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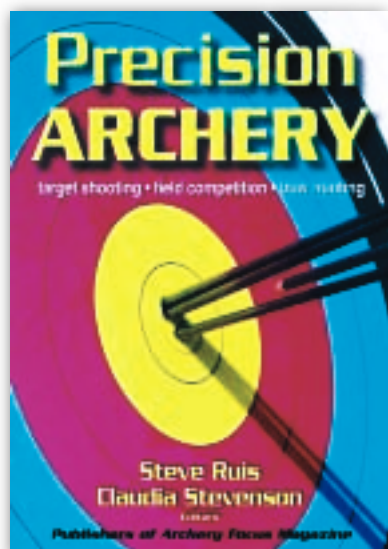
I am not sure if many people understand the milestone the National Archery Association achieved with this first camp. Prior to that point, virtually all of the responsibility for archers to become world champions was squarely on their shoulders alone. The organization was only there to make sure everyone followed the same rules, the trials were held correctly and fairly and that the team was sent according to FITA rules. This training and testing camp was the first step made by the National Archery Association to help guide and train the archers in order to achieve a higher level of success.

My next article will discuss some results of the testing made and what impact this had on our archers.



**Rick McKinney** is one of the world's most decorated archers. He was born in Muncie, Indiana where his father was a professional archer and managed a pro shop. His mother and brothers were also archers. Rick won the 1977, 1983, and 1985 World Championships. He won the US national Target Championships nine times, Field Championships six times, Indoor Championships three times and Collegiate national Championships seven times. He has two Olympic Silver medals, 1984 (Individual) and 1988 (Team). His best score is 1352. Rick is currently President of Carbon Tech, a manufacturer of arrows, in Sacramento, California.

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