

Archery in Tucson – the long version
by Margrit McIntosh

On any Tuesday or Thursday evening you can find a [dozen kids, aged 8-16](#), standing in a disciplined line, shooting arrows at a wall of targets 20 yards away. [In accordance with the ritual of archery, punctuated by the coach's commands, all wait until the last arrows are shot \("OK, go get your arrows!"\), all walk to together to the targets to retrieve their arrows, and all wait until everyone has returned to the line \("Clear!"\) before they resume shooting.](#) They chatter among themselves as they walk to and from the targets, but when they are on the shooting line, they are all business, drawing their bows with a focused intensity not often found in those their age. Their faces are both quiet and vibrantly alive.

These are the young archers of Tucson, a group that includes two national champions and a rich assortment of up and coming talent. Watched over by their coach Alexander Kirillov, they meet at least twice a week to practice together. [Those active on the competition circuit also practice on their own, as often as every day.](#)

Archery is a study in contrasts: the primitive and the high-tech, forcefulness and restraint, stillness and velocity. ["It is easy and hard at the same time, and it's also simple and intricate at the same time. \[...\] You can shoot for fun and not pay that much attention to your equipment, \[or\] you can start going into arrow trajectory and shaft stiffness and the type of fletching versus the weight of the point,"](#) comments local archer Diane Schanz.

And yet this utterly captivating sport can be practiced by anyone of any age or gender or ability, at all levels from a fun weekend hobby, to big-game hunting, to international tournaments including the Olympic Games.

Tucson is an archery powerhouse, in part because it is home to Precision Shooting Equipment, the largest privately-owned bow manufacturer in the world. PSE, located in Tucson since 1981, employs about 300 on a 160,000 square foot complex near Grant and I-10. The founder and head of PSE Pete Shepley recruited and hired Kirillov to build a first-class training school for archers here. Kirillov coached the Soviet Union team for the 1988 Olympics and the Unified Team of former Soviet republics [in the 1992 Olympics, and moved here in 1994.](#) In addition to his local students, several top-notch archers including some from outside the country travel to Tucson several times a year to train with him. [His top student, Jenny Nichols of Cheyenne Wyoming, made the Olympic team this summer, and Kirillov traveled to Athens for the Games.](#)

["\[Kirillov is\] just really good with the kids, and I'm amazed that he can go from the Olympics, and then come back here and do the beginner class,"](#) comments Teresa Huff, the mother of national champion 16-year old Maggie Huff. ["To find somebody of his class in Tucson is just an incredible stroke of luck for us,"](#) adds Schanz who began taking lessons with Kirillov a year ago.

The PSE Shooters School offers classes for children, adults and seniors, with summer classes also offered through the schools. For one young archer, her family moved here from California specifically so she could train with Kirillov and the PSE club. The kids class is usually packed, and this fall the adults class had to turn away prospective students. It is an Olympic year, after all, and although archery does not have a high profile, it is an Olympic sport.

A boom in bow-hunting has also brought archery into prominence in recent years. Recent advances in bow technology make modern bows relatively easy handle, transforming bow-hunting from a quirky rarity to a full-fledged family sport.

Becoming an Olympic-level archer takes a good deal of time and dedication. But one of the nice things about archery is that it is fun right away, before you get good at it. And anyone can hit a target if they stand close enough to it. “You put the arrow in the middle of the target, it’s so enjoyable, it’s very difficult to even explain the feeling,” says Kirillov. At PSE, beginners are given bows that are easy to draw, and are made to stand only a few yards away from the targets for the first few lessons. Using a bow that causes no strain makes it much easier to learn the elements of proper form, and good form leads to good results, maximizing the fun and satisfaction of shooting.

“Archery is a sport that anyone--with a little determination and good coaching--can excel at; and so it’s really good for building self-esteem,” comments Jon Shepley, marketing director at PSE (and Pete Shepley’s son). “We make equipment from [ages] eight to eighty [...] and older people can do it because it’s not physically taxing,” he adds. The local Tucson Senior Olympics games have had as many as 50 archers competing, in age class ranging from 50 to 80+. Kids taking lessons at PSE start as young as eight, although the main criterion is not age, but the ability to unflinchingly follow the safety rules.

The bows used in the beginner class at PSE are not toys, but are the PSE entry-level recurve, the Optima. Recurve bows have the ends of the bow curved out away from the archer, adding power to the shot. This type of bow first appeared around 2000 B.C. The longbow—a plain stick—is the other traditional style for bows. (For examples, see the Lord of the Rings movies: the elves use recurves, and the men of Gondor use longbows.) The compound bow (described later) is a relative newcomer on the scene.

At PSE all students are also given an arm guard to protect against the slap of the bowstring. Nearly everyone I’ve talked to that took archery as a kid remembers the bruises they got from the bow-string smacking their arm, and from this I assumed that the arm guard is a very recent invention. In fact arm guards are often found in archeological digs, and have been around nearly as long as the bows and arrows themselves.

Another aspect of bow technology that I wrongly assumed was a recent invention is the use of bows made up of several layers of different material glued together (most modern bows are laminated). In fact, such “composite” bows date back to at least 2320 B.C. Back then, they were made of wood, horn and sinew. The compressible horn, on the inside surface of the bow, helps push the drawn bow back to its original position, while the stretchy sinew on the outside surface contracts and pulls the bow back. Today, only the materials themselves have changed (syntactic foam and fiberglass)—the construction technique is the same.

What is truly new is the compound bow, a radically different design which uses a series of pulleys and cables to greatly increase the power and accuracy of the shot. Invented in 1966, the compound bow has revolutionized the world of bow-hunting, because it is much easier to learn, results in much more accurate shots, and has greater kinetic power for the same effort. The rapid growth of bow-hunting has fueled interest in archery in general, and has also contributed to the success of PSE. If compound bows are easier, more powerful, and more accurate, why use a recurve? One word: Olympics. The recurve is the only type of bow allowed in the Olympic games. The fact that recurves have an ancient pedigree only adds to their appeal.

Beginner archers at PSE are given recurve bows, because to achieve accuracy with a recurve requires good form, and good form is the most important element of success with any type of bow. “It’s so important to learn the basics from a person who knows archery, because the form is critical for archery,” according to Kirillov. [The entire first class is devoted to form, using the bow and a stretch band, with no arrows and no actual shooting. Kirillov patiently leads the students through the steps of drawing and releasing a bow, and these steps are practiced over and over again, until they become second nature.](#)

Knowing that Kirillov is a former Soviet national coach, you might expect to find him demanding, strict, and dictatorial, or impatient with unskilled archers. Nothing could be further from the truth: he is easy-going, friendly and encouraging. You sense that he just wants everyone to have fun, and to love archery for its own sake. Of course, if a student wants to get serious, and work their way up the competition ladder, he can provide the top-notch coaching needed for that as well. “One of the big things is he doesn’t push the kids,” comments Teresa Huff. “If you want to do it for fun, that’s fine with him, but he does have these few kids [whose] ambition’s a little bit more; and [...] as long as they’re willing to do the work, he’s willing to help, but you have to show him you’re willing to do the work, which is only fair.”

[Watching him during the kids class, you’ll see him chatting with the parents or answering a few questions here and there, and you might assume he isn’t paying a lot of attention. But he has the ability that all true teachers have of having “eyes in the back of his head.” Although he seems deep in conversation, he knows exactly when to call “Clear!” and if a student is doing something wrong or, heaven forbid, unsafe, he knows it instantly and hurries over to correct the problem. “Don’t ever think he’s not watching you!” comments Teresa Huff.](#)

Maggie Huff, a slender blonde 16-year old, is one of the top junior archers in the U.S. “It’s a lot of fun, you get to meet a lot of cool people, you get to travel a lot,” is how Maggie answers the question “why archery?” “It can be frustrating at times, but once you actually get it right, it’s--it’s really cool.” Maggie’s mother Teresa has noticed a change in Maggie since she took up archery: “Until she gets to know people she can be very quiet and reserved, [...] but now that she’s in it and has the experience of the international tournaments, and the world championship [...] she seems like a more confident person. [...] [It’s been nice to watch, and to watch those friendships kind of build.](#)”

Archery can benefit kids in other ways too. “Lots of parents told me that kids who take the archery class regularly, they are doing much better at school, because they learn how to focus, they learn how to be patient, they learn how to be disciplined,” says Kirillov. Most high-school sports are team sports, but there are many who don’t enjoy team sports (witness the popularity of golf), who relish performing solo, and that feeling of individual achievement. Shepley points to another advantage of archery: “There’s tens of thousands of kids injured every year in high school sports, and there’s never been a documented injury of a kid shooting a bow and arrow at school.”

Another top junior archer in Tucson is the tall red-headed Ryan Davis, 14, who first encountered archery at a cub scout gathering on Mt. Lemmon. Both Maggie and Ryan were selected for the U.S. Junior team and traveled to Great Britain for the “Worlds,” the once every two years international competition for juniors. “It was a blast, it was really awesome,” the usually taciturn Ryan says of the Worlds.

PSE and Kirillov are not the only archery games in town. Tucson is home to other archery ranges, including an outdoor range near the Desert Museum, and equipment can be purchased at The Archery Center on east Speedway as well as the PSE Pro Shop. Another archery club, the Desert Destroyers, sponsors “Junior Olympic Archery Development” classes on Saturday mornings, coached by Lawrence Brady, another experienced archery coach.

Archery can be performed well at almost any age—a matter of ever-increasing interest to us baby-boomers. The ages of the six members of this summer’s U.S. Olympic archery team were: 23, 26, 28, 34, 48, and 50. Janet Dykman, three-time Olympian, is old enough at age 50 to qualify for the Senior Olympics. Men’s and women’s scores are similar enough that there is some talk of combining them in some events, and some have argued that although men usually receive higher scores than women, women’s scores are more consistent, a crucial factor in archery. Women’s parity with men in archery is not a recent development—and I’m not even talking about the Victorian-era “Emma” as portrayed by Gwyneth Paltrow. Women archers appear in ancient art as far back as the sixth century B.C., and recent archaeological evidence suggests that bow-wielding Amazon warrior women, like Homer’s Troy, were not entirely mythical.

Although some upper-body strength and core stability is helpful for competition, archery does not require a high level of overall fitness, another factor that makes it accessible to many. Finally, archery is an ideal sport for many disabled people: there were 96 archers from 37 countries at this summer’s Paralympics games. As one might expect, these factors make archery one of the most competitive sports in the Senior Olympics. Senior Olympics games take place at the local, state, and national levels, with the Tucson Senior Olympics usually being held at the end of January/early February.

People watching an archery competition for the first time often find it different from what they expected. Instead of wooden bows and arrows, materials such as magnesium, syntactic foam, Kevlar, carbon, fiberglass and aluminum dominate. And at first glance you can scarcely make out the basic shape of the bow because it is bristling with attachments—sights, clickers, and stabilizing rods stick out all over the place. Next to each archer is a spotting scope on a tripod, because the targets are so far away (70 meters is more than three-quarters of a football field), and the arrows so light and thin, that competitors can’t even see how close they came to hitting the bullseye without a scope. However, when you remove all the attachments, the recurve bow is the same basic shape that has been used for thousands of years, and is shot in the same manner.

In fact you can do just that—remove all the attachments from your recurve—and compete in the “barebow” division at many archery tournaments. Some take the “purist” approach even farther, constructing their own bows and arrows by hand using historical materials and methods from many cultures, including techniques borrowed from Native American traditions. Some are serious archers, using their hand-crafted bows to hunt game, while others are recreational archers. If you’re ever in Himmel Park at the right time, you will come upon a large crowd of people dressed in medieval and renaissance costumes, holding court, feasting, and competing in tournaments, including archery. This is the Society for Creative Anachronism, a worldwide organization “dedicated to researching and recreating the arts and skills of pre-17th-century Europe,” and because of its accessibility and ease of use, archery is probably the most popular sport among SCA-ers.

And then, of course, there are the Lord of the Rings movies, which have noticeably raised archery’s profile the world over, and not just among the young. For the record, Orlando Bloom, the actor who played Legolas, was trained extensively in archery for the movies by New Zealand-based archer Jan Kozler, and many of the archery shots—including those in which Legolas shoots from horseback—

were real, not digitized, and not performed by a stunt actor. Not every archer is a Lord of the Rings fan, however: neither Maggie Huff nor Ryan Davis have seen the movies or read the books.

Actual archery practice is the antithesis of the kind of rapid-fire archery action you see in the movies: shoot three to six arrows, walk up to the target to retrieve them, and then return to the line. Repeat, dozens of times. Calling it “repetitive” doesn’t even come close. But it is never boring. Casting your fishing line over and over again doesn’t get boring because each cast is a fresh opportunity to catch a fish. In the same way, in archery each shot is a brand new beginning, a precious chance to do something wonderful, unaffected by the past or the future. “You’re thinking about how to improve yourself while you’re getting arrows and coming back, so, a lot of it--it looks boring but there’s a lot of stuff going on,” explains Maggie Huff, who practices for an hour or two six to seven times a week.

Although the U.S. leads the world in bow manufacturing, and does well in compound target archery, however, it is not known as an archery powerhouse in the Olympics. In this past summer’s Olympics, South Korean archers took home four medals (3 gold, 1 silver), Taiwan two, and one medal each was won by China, the Ukraine, Australia, Japan, Italy, and Great Britain. Jenny Nichols is the highest-ranked US archer in the international standings, at 6th place, but the other top two women are ranked 51st and 73rd, and the top three US men are ranked 20th, 23rd and 55th.

But help is on the way. The national “Junior Olympic Archery Development” or JOAD program was formed to promote the development of Olympic archers by focusing on the young (the youngest age division is up to and including age 8), and PSE sponsors a very active JOAD club. The emergence of Jenny Nichols (coached by Kirillov), who had the third-highest score at the Olympics among the U.S. men and women combined, and who is only 23, hints that it is just a matter of time until the U.S. rises significantly in the international standings.

Whether it’s seeking Olympic glory, dressing up as a medieval lady or lord, bagging that trophy buck, or recreating indigenous bows and arrows, the romance and mysterious appeal of archery lives on. Trumping all of these, however, is the accessibility of the sport. [As Diane Schanz points out](#), “As long as you can pick your arms up, you can shoot the bow.”