

IRON GAME HISTORY



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THE WEIDERART COLLECTION

Over the past year, The Joe and Betty Weider Museum of Physical Culture has received eight significant pieces of art from the Weider's private collection related to the history of physical culture. Those items are now on display in and around the Weider Museum's galleries, and in the Stark Center's newly-named Teresa Lozano Long Art Gallery, which houses sculpture and paintings related to both sports and physical culture.

Three of the items are oil paintings, part of a seven-portrait Mr. Olympia series commissioned by Joe

Weider, done by the late landscape artist Thomas Beecham, and given to the University of Texas by the Weiders; the other four paintings will arrive later. These three paintings, which are slightly larger than life-size portraits, feature Larry Scott, who in 1965 won the first Mr. Olympia event; Franco Columbu, who followed his great friend Arnold as a Mr. Olympia winner; and Lee Haney, who moved past Arnold by winning a record eight titles.

The Weider gift includes three other oil paintings—Betty Weider in a bikini, Joe Weider as imagined by Boris Vallejo, and a gym scene done by Lorenzo Ghiglieri in 1989 and based on a famous print made over a hundred years ago of the Hercules

Club in Vienna. In addition to these exceptional paintings, the Weiders also sent a wonderful bronze sculpture done in Germany in the early twentieth century of a man in the process of lifting a pair of kettlebells. And, this May, the Weiders donated a truely beautiful bronze bust of Betty Weider by sculptor Frederick Russell, atop a five-foot-tall marble base .

As can be imagined, we are very grateful to the Weiders for the gift of these marvelous artifacts and for the ones to follow. Their willingness to share with a

wider world a private collection of paintings and sculptures they have spent the better part of a lifetime assembling speaks to their generosity as well as to their sense of history. They have made their lives in the field, as have we, and they have a deep understanding of the importance of sharing their good fortune with other lovers of physical culture and the art it has inspired over the centuries. These recent gifts from the Weiders are part of a long process.

I first began visiting Joe at his office back in the Sixties, and during those visits one of the most memorable things I saw there was his collection of visual artifacts related in one way or another to the iron



This lovely bronze bust of Betty Weider was made by sculptor Frederick Russell.

game. In the very early days, the "art" in question was usually photographic art—photos of human bodies either posed or in action that had somehow caught Joe's eye. Then, as now, Joe's "eye" is uncommonly perceptive, and many people have argued that his ability to "see" the difference between a good and a great photograph contributed significantly to his long success in the magazine business.

As the years passed and Joe had a bit more discretionary income, he began to collect and even commission paintings and sculptures that reflected his particular visual tastes. This collection has grown and expanded for decades and is one of the finest and most extensive in the world of strength sports. Almost twen-

ty years ago, I played a role in his acquisition of a small painting of Sig Klein as Mercury, done by C. Bosseron Chambers in 1926. (See the editorial in Volume 4, Number 1 of Iron Game History) The painting had been inherited by Sig's family after his death and they had consigned it to Sotheby's for auction. Lacking the funds to participate in such a high octane auction and fearing that if I did take part my heart might write a check my bank couldn't cash, I contacted Joe in hopes that he might wish to acquire it for his own collection. I knew that he and Klein had been friends and that Joe had often visited Sig during the years Joe's home offices were in New Jersey not all that far from Sig's famous Manhattan gymnasium.

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As it happened, Joe was very interested, so he out-bid everyone else and acquired the painting—which oddly enough had no reference to the fact that the model was Klein. Several years later, on a trip to the West Coast I visited Joe at his office in Woodland Hills and, as I was leaving, he took me to one of the rooms in his office complex and showed me the painting, which I'd never seen. It was very beautiful, and as I was praising it he told me that since I liked it and had helped him get it he wanted me to take it back to Texas and add it to our collection. For me, the gift was absolutely unexpected, as it perhaps was even by Joe, but it signaled his growing understanding of the responsibility which came with his enormous success in the field. In the years since that time Joe has given us substantial sums of money to help us with our work and to help us honor the pioneers in the field we love. Without that financial support we might



This bronze statue shows a man lifting kettlebells, which were in common use one hundred years ago. By 1950 kettlebells were only rarely seen in the U.S. but they have recently made a remarkable comeback, particularly among athletes.



In 1989, Joe Weider commissioned Lorenzo Ghiglieri to produce this oil version of a print depicting a training session in a Viennese weightlifting club/beer hall. Close observers will see on the wall a picture of Hans Steyer, the Bavarian Hercules. The Warren Lincoln Travis Dumbbell on the floor below weighs 1560 pounds.

not have been able to get this library-museum project off the ground. Even so, as unendingly grateful as we are for the funding we have received from the Weider Foundation, the gift by Joe and Betty of their personal art collection seems to us to be even more meaningful. Each time I pass through our lobby areas and our Art Gallery and see the large portrait of Franco Columbu or the small painting of Sig Klein or the splendid bronze statue of a man lifting kettlebells I think of Joe and Betty and feel indebted to them for placing their very private collection in our very public space. I never tire of showing these things to visitors and I never tire of reminding those visitors that none of the art would be here were it not for the Weiders, who personify the truth of the old Jewish proverb,

"If charity cost nothing the world would be full of philanthropists."

"If Anyone Gets Slower, You're Fired": Boyd Epley and the Formation of the Strength Coaching Profession

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In a 1960 article in Strength & Health magazine, Al Roy, the man dubbed "the first modern strength coach," was asked about his legacy.1 "In his typical adroit manner," the article's author explained, "the man responsible for this genesis in training recalls those who inspired him. He acknowledges the fact that the selfstyled father of American weightlifting, Bob Hoffman, and the weightlifting technician, John Terpak, laid the foundation for his own system and are exemplars for those who will follow. "And others will follow," the author continued, "for he [Roy] emphatically states that the surface has just been scratched in creating a need for vital young men in the field of developing strength for athletics."2 These words proved prophetic, as the Sixties would close with the hiring of Boyd Epley, a young man who would eventually mold strength coaching into the autonomous profession we recognize today.

Strength training for athletics underwent a cultural and pedagogical shift in the United States in the 1950s and 1960s. Prior to that time, most athletes avoided weight training because they had been warned by coaches, doctors, or sports scientists that weight training would make a person "muscle-bound." By the 1960s, however, a few individual athletes had begun to understand that strength training increased speed and explosiveness and so trained on their own, often far from the watchful eyes of their coaches. By the end of the 1970s, however, it was much less likely for an athlete to compete for a championship in any sport without having spent the requisite time in the weight room doing sportspecific conditioning drills. So pervasive had preparation for sports become that, in 1978, Nebraska Strength Coach Boyd Epley was able to convince others to join him and form the National Strength Coaches Association, now known as the National Strength and Conditioning Association (NSCA).⁴ The paradigm shift from an athletic world with only a few isolated barbell men, to a professional organization of strength coaches with national reach happened suddenly, and the reason for that shift is best encapsulated in five words: Boyd Epley and Husker Power.

Less than a decade earlier, in September of 1969, Epley, a junior pole-vaulter at the University of Nebraska, was performing his daily rehabilitation exercises in the tiny Schulte Field House "weight room" when he was summoned by an assistant athletic trainer and told, "You've got a phone call." Epley was surprised to be receiving a call; he'd been a student-athlete at Nebraska for less than a year and he certainly didn't expect to get a call at the athletic complex. His contemplation of who might be on the line was interrupted by the athletic trainer, who impatiently shouted, "Get in here! It's Tom Osborne." Osborne, who would later become the most successful head football coach in Nebraska history, was at that time coaching the receivers and calling the offensive plays for the team. Epley recalls that he was taken aback when he heard it was Osborne, and wondered if he'd somehow gotten into trouble with the coaching staff.5

First, some background. As part of Epley's rehabilitation program for a back injury, he had chosen to include heavy resistance training. While the meager selection of weights and machines in Schulte Field House made serious weight training somewhat difficult, Epley drew upon his previous exposure to bodybuilding and Olympic weightlifting to craft a program to improve his overall strength while he was recovering from his training injury. Other injured athletes, also unable to



Although Epley played football in high school in Phoenix, Arizona, his great love was pole valuting and he was given a scholarship to the University of Nebraska after two years on the track team at Phoenix College. At Nebraska he set a new indoor school record at fifteen feet during his junior year but then suffered a back injury that ended his track career.

practice, were frequently in the weight room during Epley's workouts and a number of them became so intrigued by his training program that they began following him around and performing the same exercises. At the time, none of the Nebraska athletic teams engaged in organized, heavy resistance training. The prevailing belief at Nebraska in this era, according to Epley, was no different than that in many other athletic circles across America—i.e., athletes should not do heavy weight training because it would result in slower athletes with a decreased range of motion. Consequently, heavy resistance training was excluded from nearly all sport-training programs. So, as he walked to pick up the telephone receiver, Epley worried that Osborne's call would be a rebuke for allowing some of the injured football players to lift with him. And, at first, his heart sank as Osborne asked, "Are you the guy who's been showing these guys how to lift weights?" Somewhat reluctantly, Epley affirmed that he had been working with the players and that some of them had been following his routine. Then, to his surprise, Osborne said, "I've noticed that they come back to practice healthier and stronger and I'm interested to know what you're doing in there. Would you be interested in coming over and talking to me?" Epley, with a sigh of relief, said he'd be happy to come right over.

Osborne and the other Nebraska football coaches had no doubt seen the well-muscled, 180-pound Epley around the athletic complex, but they could not have known that along with his athleticism and exceptional muscular development, Epley was already a serious student of strength and conditioning practices. In fact, by the time he arrived at Nebraska, he was familiar with the training methods of bodybuilding, powerlifting, and Olympic weightlifting and had learned to borrow from all three systems for his own training.

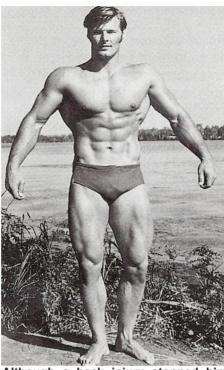
Boyd's involvement with strength training began in the seventh grade when his father purchased a York barbell set for him. That set included a sheet of instructions on how to perform the Olympic lifts and so young Boyd began his career by doing presses, snatches, cleans, and jerks. Although he practiced these lifts faithfully for a time, he gradually lost interest in training at When he entered Alhambra High School in Phoenix, Arizona, Epley tried barbell training again, this time as part of a physical education class. Again, however, he didn't stick with it. According to Epley, it just "didn't really make sense" to him at that time. However, following the end of the football season in his junior year in high school he decided he had to be bigger and stronger and so he began training more seriously in order to gain weight.8 During the summer between his junior and senior years he worked out at a local health club with a classmate, Pat Neve, who would go on to win multiple powerlifting competitions and the Mr. USA bodybuilding title in 1974.9 Neve, who was already interested in bodybuilding, taught Epley how to train, and by the end of the summer Boyd had gone from 160 pounds to 180 and had learned a great deal about the training methods of bodybuilders and powerlifters. When he reported for football practice in the fall his newly added size was, "kind of a shocker to my coaches."10 At linebacker, Boyd went from a self-described "non-factor" his junior year to the defensive player of the year as a senior. His newfound strength also translated well to his spring sport, track, where he garnered track athlete of the year honors as a pole vaulter. After graduation, he took a track scholarship to attend Phoenix College, the local junior college. There, he continued lifting and soon caught the eye of the Nebraska track coach Dean Brittenham who, in 1968, offered Epley a scholarship to join the track team at the University of Nebraska. Epley set a new Nebraska record in the indoor pole vault at fifteen feet but then, during his preparation for the spring 1969 track season, he suffered the back injury that inadvertently put him on the path to shaping the future of Nebraska athletics and creating the profession of strength coaching.

One can only imagine what must have been going through Epley's undergraduate mind as he abandoned his workout and walked to Osborne's office following the phone call. To Epley's great sur-

prise, however, when he got there Osborne didn't want to just talk; he had a proposition for Epley. Osborne told Epley that he was interested in having the entire Cornhusker football team begin a weight lifting program and he asked what Epley would need in order to direct such a program.

Epley's response to that question tells a lot about the man he eventually became. Rather than just suggesting that he could get by with only a few extra weights, Epley informed Osborne that the current weight room was too small to accommodate an entire team's workout and that a significant amount of additional equipment would be needed. After talking about space and what equipment would need to be ordered, Osborne decided to place his faith in the self-assured twenty-two year-old and told him he'd have a wall moved to create a larger space. Osborne then asked Epley to write out a shopping list of new equipment that they'd need for training the entire team.¹¹

Epley returned the next day with a list of the basic equipment needed for such a program. The initial list was fairly conservative owing to the fact that Epley



Although a back injury stopped him from competing in the pole vault, Epley continued to lift weights and began competing in powerlifting and body-building competitions. This photo, taken in 1971, shows him at a body-weight of approximately 180 pounds.

wasn't sure how much Osborne intended to spend on the nascent program. To train the entire team he asked for only two squat racks, barbell plates and racks to hold them, one bench, a light pulley system for shoulder work, dumbbells in pairs from five to one hundred pounds, a preacher curl bench and weights, two free-standing benches, two incline benches, and three Olympic bars to go with the small amount of equipment Nebraska already owned.12 According to Epley, Osborne took the list from him, gave it only the most cursory glance and handed it to the football secretary, instructing her to "order this." Epley later claimed that that moment opened his eyes to the power of football on campus, and so he shrewdly said, "Coach! I forgot the second page," feigning distress. Epley recalls that Osborne then gave him a wry smile and said, "Alright, bring me the second page tomorrow."13

Osborne then turned to Epley and told him, "Now we've got to go in and see Bob." The comment jolted Epley. Bob Devaney was Nebraska's head football coach and athletic director and therefore one of the most powerful men in the state of Nebraska. "What do you mean?" Epley asked incredulously. Osborne responded, "We've got to go get permission to do what we just did." And with that the men headed up to Devaney's office. Epley recalls how unnerved he was to see Devaney sitting behind his massive desk in an imposing red leather chair and claims he has a hard time remembering all he said to convince Devaney to support Osborne's project.¹⁴ While Devaney was interested in the idea he was not at all sold on it. "Why," he wanted to know, "should we [lift weights]? No one else is doing it. My good friend Duffy Daugherty at Michigan State isn't doing it. Why should we?"15 The only real evidence Epley was aware of for the efficacy of a strength program was anecdotal, in the form of his own success through strength training. He groped for an answer and eventually informed Devaney that weight training would help him win more games because his players would be

faster. With that Devaney told Osborne and Epley that they could go ahead, but then looking Epley square in the eye he told him, "If anyone gets slower, you're fired." Epley's career as a strength coach had formally begun.

undercurrent The Devaney's apprehension that lifting heavy weights would decrease his players' speed was, of course, the notion that his athletes would become "muscle-bound." The idea of a "muscle-bound" athlete was a concept that defied physiological definition and existed because of inference and anecdotal evidence.17 The widely-held belief was that heavy training would limit a joint's range of motion and result in decreased speed of muscle contractions.18 Author and former Strength & Health editor, Jim Murray explains, "From everyday experience, we know that body bulk in animals and men does not accompany speed and flexibility. A bulky draft horse will lose out to a race horse any day, and a circus contortionist, that miracle of flexibility, never has the body of Hercules."19 When we think of those with tremendous strength, we tend to think of individuals who would fall into the heavyweight classes in competitive lifting. In fact, Benjamin Massey credits strongmen with contributing to the notion of the muscle-bound lifter: "Many of them were ponderous men

performing their feats by brute strength. Skill was not important. It was only natural that the public should associate ponderosity (sic) and awkwardness with weight lifting."²⁰ Once the idea of becoming "musclebound" became entrenched in the minds of coaches, athletes, and educators, it had a snowball-like effect. Those who believed it to be true passed on the idea to their charges who, hearing the idea from a person whom they assumed to be a reliable source, took it as fact.²¹ In an interview with Terry Todd, Epley commented that he



As the head strength coach at Nebraska, Epley played an active role on the field as well as in the weight room. In this photo he helps defensive end Neil Smith stretch his hamstrings before a game. Smith was an All American at Nebraska in 1987 and then had an eleven-year career in the NFL, making the Pro Bowl six times

believes "People are victims of their coaches. What their coaches did to them is what they know; whether it's right or wrong."²² Given that Bob Devaney played his collegiate football in the 1930s, it seems quite likely that his approach to preparation for football was guided by what his coaches "did to him," which almost certainly did not include participation in or advocacy of weight training.²³

In addition to the myth of muscle-binding hampering the application of weight lifting to sports, anoth-

er dying paradigm was slowing the development of conditioning for athletics—the notion that athletic ability was a fixed trait. Historian John Hoberman cites an American physician of the late nineteenth century as claiming, "This limit [of strength and speed] is fixed at different points in each man in regard to his various powers but there is a limit beyond which you cannot go in any direction." Hoberman goes on to say, "This limit, in turn, was nothing less than 'a law of Nature.' Indeed, the last decades of the nineteenth century saw an important struggle between these two opposed theories of human potential: an older doctrine of natural limits and a new doctrine of expanding biological limits. The new experimental approach to high-performance athletics was one expression of the expansive interpretation human capacities."24 Rob Beamish

and Ian Ritchie assert that this belief in natural limits was manifested in preparation for sport in that, "The term 'training' existed in the late nineteenth and early twentieth century and coaches and athletes approached it within the premises of the first law [of thermodynamics]. Training was synonymous with 'drill'—the repetition of skills to refine technique, improve coordination, and enhance precision and execution. Training was not designed to systematically increase physical power, speed, endurance, and agility through specific, targeted programmes."25 If a coach is operating under the assumption that, due to natural law, his players are as strong and fast as they were "born" to be, it would not occur to him to spend time trying to enhance their performance by trying to build their strength or increase their speed either during or outside the playing season. Again, given the era during which Devaney was himself a student and the prevailing theories that were taught to his coaches, it is quite possible that he'd spent the majority of his career operating under at least some form of this "paradigm of natural athletic ability."

The attitude of many coaches, who thought like Devaney did at that time, was epitomized by Harry Paschall in a 1956 issue of *Strength & Health* magazine: "One Midwestern University Coach, whose teams have



Head football coach Bob Devaney's concern that strength training might make his team slower inspired Epley to begin testing his players and to keep meticulous records. As Devaney soon learned, Epley's program made the players faster and stronger and unquestionably helped them win the National Championships in 1970 and 1971

played in the Rose Bowl, once told us, 'I don't want any musclebound weightlifters on my team." Paschall goes on to say, "The coach is no longer with this University because, while he was a smart strategist and knew football, he didn't know men and didn't know proper methods of conditioning. He belonged in the Past and that is where he is now spending his future."26 The idea that lifting heavy weights would result in decreased athletic performance seems almost laughable now, but that's largely because Boyd Epley and his new program at Nebraska would go on to play an important role in dispelling the myth of muscle-binding.

In the fall of 1969, Bob Devaney was in danger of similarly belonging to the past. He'd come to Nebraska in 1962 and, in his first five seasons, finished no worse than 9-2. By the late sixties, however, his

teams had fallen off of the standard that he had helped set, going 6-4 in both the '67 and '68 seasons and failing to reach a post-season bowl game.²⁷ Making matters worse, the Huskers finished the 1968 season by taking a 47-0 thrashing at the hands of their arch-rival, the Oklahoma Sooners, on national television. At this point, some of the donors and alumni had begun grumbling that it might be time for a coaching change. Nebraska fans in Omaha went so far as to start a petition calling for Devaney's removal.²⁸ Faced with this reality, Devaney knew that changes had to be made, thus providing the impetus for what later became Husker Power.

While Devaney may have *believed* that no other teams were training with weights, however, quite a few were. In spite of Devaney's trepidation, he was not the first coach who'd been goaded into the addition of a strength training program, though he was perhaps unaware of this. Those coaches too were leery, but their gambit paid off beyond their wildest expectations. By that time, Bob Hoffman, founder of the York Barbell Company and coach of the USA Weightlifting team, had been battling ardently against the myth of muscle-binding for several decades. Through his magazine, *Strength & Health*, he and his disciples at the magazine published volumes extolling the virtues of weight training for ath-

letes, and Hoffman even went so far as to offer five thousand dollars to anyone who could produce a man who became muscle-bound through the use of weights.²⁹ In spite of his conviction, Hoffman was initially unable to convince many coaches that weight training wouldn't impede their players' athletic ability. Perhaps part of the reason for this is that while Hoffman was correct about some of the benefits of weight training, he also often extolled virtues which existed only in his own mind. Hoffman regarded weight training as a virtual panacea and incorrectly credited it with improving the function of all organs, "involuntary muscles," and even improving height.³⁰ Hoffman was able to convert many skeptics into believers, however, and one of them, Alvin Roy, would go on to become football's first strength coach.

Like many of his contemporaries, Al Roy initially believed that weight lifting would have deleterious effects on one's athletic ability. This belief was shattered upon witnessing the speed and flexibility of top-flight weightlifters, particularly heavyweight champion John Davis, at the 1946 World Weightlifting Championships in Paris. As part of his Army duty, Roy had been assigned to act as the aide de camp for the United States weightlifting team during those championships. During the pre-meet training and the contest itself, he was able to witness some of the most explosive athletes in the world tossing several hundred pounds overhead with unmatched quickness and dexterity. For Roy, this was tangible proof that the notion of weightlifting harming athletes was fallacious indeed.31 Roy quickly became eager to prove how valuable a weight training program could be for athletes. In 1951, after his service career had ended and he'd moved to Baton Rouge, Louisiana, and opened a gym, he offered to help his alma mater, Istrouma High School, start a weight training program for the football team. The coach and principal at Istrouma, brothers James and Ellis Brown respectively, turned down his offer and continued to demur until the end of the 1954 season. Following a defeat by their bitter rivals, Baton Rouge High School, the Browns relented and let Roy begin a program of barbell and dumbbell training for the team during the spring of 1955.32 The next fall the boys from Istrouma swept their schedule going a perfect 13-0, won the state title, and became the first school in Louisiana history to have four players on the Triple A all-state team.³³ The team was led by senior fullback Billy Cannon, who averaged ten yards per carry during the football season and then, during the spring track season, won "State" in the one hundred yard dash, the two hundred yard dash, and the shot put. Cannon was subsequently given a scholarship at Louisiana State University and began playing there the following fall.

At LSU, however, few of the players engaged in weight training, but following a disappointing 5-5 season in 1957, Head Coach Paul Dietzel was willing to listen when Roy made his pitch to bring his program to the collegiate ranks. With Dietzel's approval the Tigers followed Roy's program throughout the spring of 1958. Even so, going into the 1958 season the Tigers were expected to flounder once more.³⁴ Rather than struggle, the "Bayou Bengals" dominated the competition and went on to win the national championship. The following season, Billy Cannon won the Heisman Trophy, given annually to the nation's most outstanding collegiate football player; and in track won the SEC title in the one hundred yard dash, the two hundred yard dash, and the shot put. Of Roy's strength program Cannon said, "I was afraid at first that the program would slow me down, but it made me faster . . . I am sure that the weight training program was, in large measure, responsible for my success."35 For his part, Roy moved on to professional football with the San Diego Chargers in 1963 and, just as with Istrouma and Louisiana State before, the Chargers went on to win their league championship that season.³⁶

Among coaches, word of the benefits of weight training spread, but resistance remained. Paul Dietzel recalled, "I went to dozens of clinics and I always explained how Al Roy sold me on the program and how I'd watched Billy Cannon get bigger and faster at the same time and that our whole team did heavy lifting. You see, at that time there were no such programs in the country on the college level but after we had that great year, lots of other schools began to change. Lots of schools did a little light lifting, but because of fear and plain old prejudice against the weights, no one was doing the heavy, major muscle group work that we did, and our success triggered what we've seen in the years since."³⁷

In addition to the football teams that trained with weights, there were individual players across the country, men whom Hoffman referred to as "barbell men," who lifted weights on their own to improve their game. One such barbell man was Pete Dawkins of the United States Military Academy, who had preceded Cannon in winning the Heisman trophy. Of his training, Dawkins said, "I'm sure that weight lifting did a great deal to help me out physically." Stan Jones, a defensive tackle at the University of Maryland, was also extolled by *Strength & Health* editor Jim Murray as a barbell man. 39



Baton Rouge resident Al Roy is credited with being the first true strength coach for football. In 1954 he began working with the Istrouma High School team which was undefeated that year and went on to win the state championships. In 1958 he began working with the LSU Tigers and made them strong enough to take the national title. He then moved on to the pro ranks and in 1963 became the strength coach of the San Diego Chargers, who went on that year to win the AFL Championships.

In the same 1954 article, Murray goes on to say, "It would be a safe bet that there is not one professional football team in the country which does not have several members who have made use of weight training to improve their physical condition."⁴⁰

Starting in 1959, *Strength & Health* magazine ran a series of articles titled "Barbells on Campus," which documented colleges and universities utilizing weight training for fitness and performance.⁴¹ From these articles, we can get a sense of which schools were employing weight training, and to what extent, in their athletic departments. A few of the articles mention that weight training was a coach-mandated component of training for football. Players at Wake Forest University, for example, underwent a three-day per week weight training program at the behest of head coach Bill Hildebrand beginning after the 1959 season.⁴² In a 1962 article, author John Neumann makes the assertion that, "Almost without exception, every track and football team on the West coast makes use of weight training in

one form or another in its total program. The school that doesn't is rare indeed."⁴³ Other schools featured in the series, such as the University of Maryland and Michigan State had individuals who were "barbell men," but lifting for the football team as a whole wasn't required. Interestingly, the University of Nebraska was featured in a similar article that ran in *Iron Man* magazine in 1960. The article describes the weight training facilities available to the Nebraska student body and the popularity of weight training classes. Such was the enthusiasm for weight training at Nebraska at that time, according to the article, that the classes were often filled well beyond their intended capacity.⁴⁴

In reality, Nebraska had begun experimenting a bit with resistance training before Epley joined the athletic department staff. Following the 1968 football season, Cletus Fischer, then an assistant offensive line coach, had seen some high school football teams undergoing a station-based, circuit-type conditioning program on a recruiting trip to Texas.⁴⁵ He suggested to Devaney that a similar program be implemented at Nebraska. Athletic trainer, George Sullivan, and assistant track coach, Dean Brittenham were tasked with developing the program.⁴⁶ And so Nebraska's first winter conditioning program, modeled on the circuit-based workouts seen in Texas, consisted of eight different stations, at which exercises were performed for five minutes each. Because of the high number of repetitions performed at each station, however, no significant strength gains were made by the team from this program.

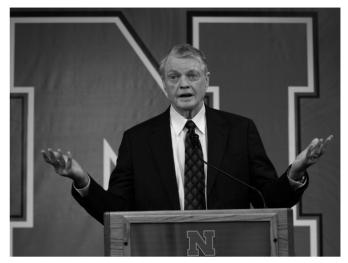
On August 15, 1969, however, Epley began implementing a more modern program with the Nebras-ka team in their newly outfitted weight-room.⁴⁷ After some initial testing, the Cornhuskers followed a dramatically different kind of weight training program than the circuit work they'd been doing the previous winter. Epley's program, which the men did during the football season, was an amalgamation of bodybuilding, power-lifting, and Olympic lifting. Epley remained active as a competitive powerlifter and weightlifter until 1972 and so he knew that the heavy-training exercises of power-lifting—squats, bench presses, and deadlifts—would maximize the players' strength. Similarly, he understood that the quick, explosive Olympic lifts required more athleticism and helped to produce power.

The turnaround for the Huskers was immediate. During the 1969 season, they posted a 9-2 record that included a 44-14 thumping of Oklahoma and a 45-6 trouncing of Georgia in the Sun Bowl.⁴⁸ In the winter

following the '69 season, Boyd also took over control of the winter conditioning program. As the Huskers continued to dominate during the 1970 and 1971 seasons, both of which ended in national championships, Epley grew in stature and power at Nebraska. When Bob Devaney stepped down as head football coach following the 1972 season to become the Nebraska athletic director, he turned the football team over to Tom Osborne, his hand-picked successor. Osborne made sure he didn't lose Epley.

Osborne's ascent to the head coaching position ushered in a new era for Husker football as he took a different approach to the game than Devaney had espoused. According to Epley, Devaney's preparation for games varied little with respect to the opponent; he simply said "this is how we're going to line up, and we're going to run right here."49 Under Devaney, the Huskers did what they were going to do, and dared the opponent to stop them. Osborne, on the other hand, was a meticulous planner. He has been called, "relentless in his pursuit of information" and "as resourceful as they come." 50 Each week he created a game plan tailored to the upcoming opponent and required all of the Nebraska quarterbacks to pass a written exam on that plan.⁵¹ To Osborne, the process of preparing to play the game was crucial and his emphasis on preparation was part of the secret of his great success.⁵² The process of preparing to play is where strength and conditioning comes in, and Epley gives a great deal of credit to Osborne saying, "it [the strength program] was really his idea . . . he's the one who recognized the need [for the program]."53

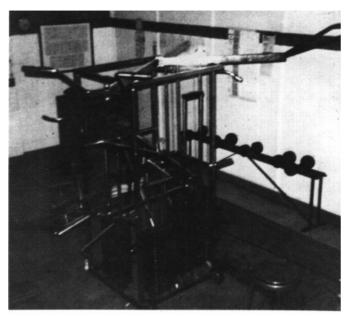
For his part, Epley was no less meticulous than Osborne, and every bit the student of his craft that Osborne was. He also credits Devaney's ultimatum with shaping his approach to the profession. Devaney made him realize that the program would need to produce measurable results and do so quickly.54 To that end, Epley knew he had to devise and employ tests that could objectively demonstrate an improvement in the players' performance. Devaney's biggest fear was that heavy strength training would cause his players to become slower. To prove that this wasn't the case, Epley initially tested players every two weeks on the 40-yard dash.55 To do these tests in the beginning, however, he had to borrow stopwatches from the physical education department, and while he was there he began making friends with some of the physical education faculty, to whom he began turning for advice. One bit of advice that revolutionized athletic testing came from the department's



Tom Osborne, now the Athletic Director at Nebraska, was a young assistant coach in 1969 when he asked Epley to help the football team learn how to lift weights and get stronger. After Osborne became the head coach in 1973, he—with Epley's help—built a dynasty at Nebraska. In twenty-five years as head coach, Osborne never won fewer than nine games in a season and compiled a career record 255-49-3 record that included three national championships.

chairman, Dr. Carl Weir, who suggested that he include a test he referred to as the "jump reach," or vertical jump test, as a way to measure athletic power. Looking back on some of the early aspects of the program, Epley seemed almost embarrassed when interviewed for this article. The testing of the forty-yard dash at such regular intervals was, in his words, "crazy," but Epley was beginning to realize that his program was always a work in progress and that he, as the developer, would probably always be tinkering. While he tinkered, of course, the Nebraska players got stronger and stronger. In the beginning, Epley says, "I was testing everything I could, because I didn't know any better, trying to find something that could help us win."58

One early, and significant, change Epley made to the team's previous approach to training was dropping the "station" in the team's workout which emphasized aerobic conditioning by having the players run continuously for five minutes. Epley realized that a football game will never require a player to run constantly for that length of time, obviating the need for players to practice doing so. While he may not have categorized it as energy-systems training, he began to tailor his program to sport-specific needs early on. Another early change was in the testing format. Regular testing of the forty-yard dash was dropped because Epley recognized



This grainy snapshot shows the single Universal Gym and incomplete rack of dumbbells that constituted the varsity weight toom at Nebraska before Epley was hired in 1969.

that two-week intervals were insufficient to allow performance improvements and because of the risk of hamstring injuries. Again, owing to his willingness to tailor the program to the demands of the sport, testing of the forty was largely replaced by testing on a ten-yard sprint. Again, Epley reasoned that the new test was a better fit for the sport. Rarely will a player ever get the opportunity to get up to full speed, as is evaluated in the forty. They will be asked to be explosive for a few yards on every play however, so evaluating how quick their first few steps are is probably more relevant to enhancing their football performance. Records are still kept, and the forty is still tested at Nebraska, although now the rationale for running forty-yard sprints is that it remains the measuring stick used by talent evaluators for the National Football League.

Epley was lucky in his choice of assistant strength coach Mike Arthur, who was hired by Epley in 1977, and who, like Boyd, was serious about the scientific aspects of training. One of Arthur's early contributions was a computer program called "Strength Disk;" it allowed Epley and his assistants to create individualized workouts, with benchmarks, for each athlete, taking account of their performance during the most recent testing session.⁵⁹ While they both realized that individualized training was the best approach, Epley and his staff were seriously hampered by the large number of players who came out for the team. It was not unusual for them

to have more than two hundred athletes trying out for the team, most of whom were Nebraska boys with little strength training background. While the talent pool was wide, it wasn't always as deep as in other, more densely populated states like Oklahoma and Texas, and so player development became a top priority for Epley and the program. Epley quickly realized that he could not really train the more than two hundred players who wanted to try to be part of the Nebraska team. He needed a way to determine which athletes were likely to benefit the most from training and which ones were already naturally talented. With the help of assistant coach Mike Arthur and football fan and criminal justice professor Chris Eskridge, Epley developed the Performance Index, a system of tests to assist with ranking athletes. The Index used what they termed a "power curve" to rank each athlete's performance at a series of specific tasks (vertical jump, agility run, and ten- and forty-yard dashes) based on bodyweight, and to measure performance improvements following a set period of training. Athletes with high scores on the initial tests who still improved would be given more weighted points than athletes with low initial scores who improved by the same value. In this way, the performance-adjusted Performance Index was used to quantify who the mediocre, good, and possibly great athletes were within the larger group. Epley and his assistants then focused their efforts on developing the most highly ranked athletes.60

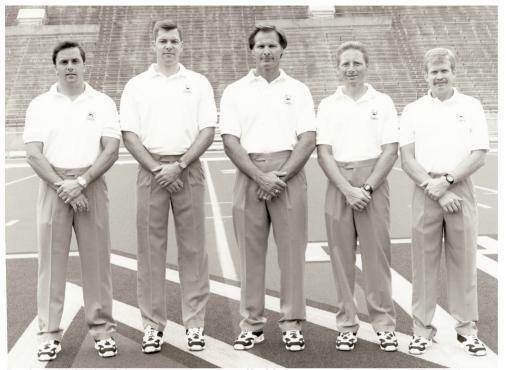
In his classic 1978 book, From Ritual to Record: the Nature of Modern Sports, sport historian Allen Guttmann describes what he considers to be the seven characteristics of modern sport: secularism, equality, bureaucratization, specialization, rationalization, quantification and obsession with records.⁶¹ Although Guttman's model is generally thought of in reference to sport itself rather than the process of training for sport, the strength and conditioning program at Nebraska during the Epley years underwent exactly the kind of conceptual shift described by Guttmann. Guttmann's third characteristic of a modern sport, for example, is an increase in specialization. In his book he specifically cites football as an example of a sport which has a high degree of specialization, with twenty-two different positions, not including "special teams." He goes on to point out that such specialization also results in an "intricate system of supportive personnel."62 Most teams, even at the high school level, have coaches who specialize in coaching one or two positions. Further, there's a sportsmedicine staff to keep the players healthy, a sports mar-

keting staff to promote the game, and a variety of people involved in making the whole thing run (referees, equipment managers, ticket-takers, ushers, and so on).

So, specialization within the sport leads to specialization of those involved in preparation for the game. By hiring Epley, Bob Devaney took an important step in accelerating this process. On its face, it appears that Epley as the strength coach is just one more specialist on the payroll. After all, conditioning duties had largely been handled previously by the athletic trainer or coaches with an interest in that area. Epley may seem, then, just a more specialized version of those individuals. Closer examination, however, reveals that the hiring of Epley represented an important step in the evolution of the collegiate athlete. Prior to the introduction of the "winter program," Nebraska football players would show up in the fall for pre-season camp and "play their way into shape."63 Then, once the season was over, they were free until spring football, during which time they were football players again for several weeks before becoming free once more during the summer until fall camp started. In this system, when they weren't playing football the players were able, if they desired, to focus all of their energy on being students. During football season and spring ball, the players were de facto vocational students according to Clark and Trow's classification of student subcultures. Vocational students are those who are "working anywhere from twenty to forty hours a week . . . To many of these hard-driven students, ideas and scholarship are . . . a luxury and distraction."64 This "vocation" became more time-consuming with the introduction of Epley's new year-round conditioning program; Nebraska football players never stopped being football players. Their vocation was now year-round, and that vocation was football. According to Guttmann, "... the crucial factor in professionalization is not money but time – how much of a person's life is dedicated to the achievement of athletic excellence? In other words, to what degree does a person specialize in such excellence?"65 The new model for football training begun by Epley was, therefore, an important step in the transformation of part-time "student-athlete" football players into athletes whose sport at the Division One level requires them to essentially be semi-professional athletes.

The heavy focus on player development allowed Nebraska to develop what Epley refers to as an "assembly line" of great players. Development of athletic talent was integral to the success of the Husker program

and the expectation of year-round effort became established as part of the recruitment process. Keteyian remarked in his book, Big Red Confidential, that "Without question, no football team in this country—college or pro—takes more pride in its strength and conditioning program than the University of Nebraska. One look at the weight room and its attendant motto printed proudly on a sign—'Where the Best Athletes Come to Get Better'—tells you that."66 During their recruitment, players sat through a presentation by Epley, which took place atop the altar-like "records platform," a central feature of the West Stadium weight room. During these presentations, Epley would emphasize what coming to Nebraska could do for them in terms of their development as athletes. Due to Osborne and Epley's player-development philosophy, freshmen and sophomores rarely played, particularly at non-skill positions.67 In contrast, if the players had elected to go to other schools, they might have had the chance to jump right into the mix for playing time. Part of Epley's recruiting task was convincing players that spending the time in training would be more beneficial for their athletic careers over the long-term. Boyd says, "We would look at the recruit and ask, 'How much do you weigh? How much do you want to weigh?' [Then we'd tell them] you might as well go somewhere [like Nebraska] where they know how to help you do that. Here are some examples of athletes at your position that we've helped."68 The records platform also had a large screen above it, and it played films of Nebraska football greats throughout the presentation, allowing prospective players to see in unmistakable clarity the results of the program being sold to them. They could see Neil Smith, who would go on to be selected six times for the NFL's Pro Bowl, and how he gained fifty pounds in as many weeks and became the fastest defensive lineman in Nebraska history. They could see Dave Rimington, the only back-toback winner of the Outland Trophy (given to college football's best interior lineman), using nine-hundredplus pounds on the hip sled. Offensive and defensive linemen, in particular, were sold on the notion of what the strength program could do for them. If they chose to play at Nebraska, they were told up front that there was a "no missed-workout" policy. So ingrained was this philosophy, Epley said with pride, that at one point, "We went fifteen thousand workouts without an offensive lineman missing a workout."69 Of his role in the recruiting process, Epley said, "By the end of the demonstration, parents and recruits were pretty well convinced that **Iron Game History**



By the mid-1970s Epley (center) had a staff of four who assisted him. Mike Arthur, on the far right, was his first and probably most important hire. Arthur, who took over when Epley retired in 2006, helped create the Performance Index and assisted in a variety of ways in helping the profession get started. The other men in this image are (I-r): Randy Gobel, Jon Jost, and Bryan Bailey.

Nebraska was focused on helping athletes improve their performance. Not all schools were. A lot of schools, they just recruit you and then they didn't even have a strength program. They recruit you and you either played well or they'd get someone else and you were done."⁷⁰ The Husker Power program was actually what sold Dave Rimington on playing at Nebraska. Heavily recruited out of high school, the Nebraska native chose to stay in state for his collegiate career because of the strength program. Rimington said, "I was really hooked on the weights by my senior year and I knew Nebraska had a great tradition and a big weight room. The choice was easy."⁷¹

While a large portion of the emphasis was placed on player development due to the personal philosophies of both Epley and Osborne, some of this emphasis was a result of necessity. As previously mentioned, with a large supply of athletes willing to work but a relatively small pool of really talented athletes, Nebraska's success depended on extracting the best from the talent they had. A further detriment to recruiting, as Epley pointed out in an interview, was that Nebraska didn't have mountains like Colorado or beautiful beaches like Miami. As a result, recruiting efforts pitched

what Nebraska *did have*: a weight room and a man who knew how to employ it to build bigger and better athletes.⁷²

Guttmann wrote in Ritual to Record that if you "combine the impulse to quantification with the desire to win, to excel, to be the best...the result is the concept of a record."73 In order to motivate players and show progress, Epley established a school record board in the spring of 1970.74 Located prominently in the weight room, the record board tallied best lifts in events such as the bench press, squat, hang clean, vertical jump, fortyvard dash, and served as a prominent reminder of what could be achieved with dedication to the Husker Power

Carrying specialization even further, Epley program. made sure that records were established for each sport as well as for the entire athletic program. In addition to the overall records, the Performance Index was used to rank records with respect to the size of each athlete by using an elaborate scoring system. They even posted the best overall performance index score, a composite of an athlete's scores on all of the tests factored against their body size. What started as a simple board used to track a handful of best lifts quickly evolved into an elaborate ranking system, which now necessitates statistical software. As the historian John Hoberman noted, our love of records and "quantified sports performances" are part of "a mania for measurement that continues unabated to this day."75

Under Epley's direction, the preparation methods for all varsity sports at Nebraska began assuming more and more of Guttmann's characteristics of modernity. Keeping track of records allowed athletes to compete against not only their current teammates, but the school's all-time greats. Using the scaled scores of the Performance Index even allowed athletes to compare themselves to athletes in other sports, regardless of size and gender. Guttmann's principle of rationalization, a

prescription of rules with a "logical relationship between means and ends...in order to this, we have to do that,"ideally fits the process of physical training.76 Guttmann suggests that "training implies a rationalization of the whole enterprise, a willingness to experiment, a constant testing of results achieved."77 In the case of football, the overarching goal is obviously to get the football into the opponent's end zone, in accordance with a specified set of rules, but some of the particulars of that process are left up to the players and coaches. Tom Osborne preferred to get the ball into the end zone through the brute force of a Power-I option attack. Barry Switzer, one time coach of the Oklahoma Sooners, said of Nebraska's rushing attack, "Everyone knows what Nebraska is going to do! The trick is stopping it! You don't win with schemes or playbooks, you win with players . . . Other people run the Nebraska offense, but they run the ball on first down and it's second-and-eight. When Nebraska runs it, it's second-and-two. They run it again, and it's first-and-ten."78 The prescribed rules of the game allow you to throw the ball over your opponent. The Huskers, however, preferred to run over and through the opponent. The strength program, with its emphasis on explosiveness and sheer strength, is an emblem of rationalization. The original record board included the bench press and did not include the 10-yard dash. Testing of the bench press was dropped because Boyd felt it was not a useful measure of football talent; the ten-yard dash was added because short, explosive bursts of speed are essential on the gridiron.⁷⁹ strength program was a component of rationalization in that it allowed the Huskers to move the ball into the opponent's end zone more effectively, using a ground attack that conformed to the prescribed rules of the sport. In giving credit to Osborne for starting the program, Epley is quick to point out that it would not have been as successful as it eventually became were it not for Osborne's football philosophy. Had Osborne sought to spread the field and build a speedy passing attack, big, powerful linemen and backs would not have been as necessary. Owing to Osborne's preference for a grinding running game, the strength program became an essential part of Nebraska football.

Another aspect of modernity is the creation of bureaucratic entities to support and administer sports. Epley's first contribution to this characteristic of modern sport was the formation of the Husker Power Club. This club, started by Epley in 1984, served as a booster club specifically for the strength and conditioning program.

Membership dues to the club continue to be used to update the facilities and purchase new strength equipment used by Husker athletes. 80 Membership categories range from a \$50 annual donation up to \$5000, with benefits commensurate with the amount donated. The lowest level allows the donor to receive a quarterly newsletter which keeps them up to date on the training progress of Nebraska athletes. A donation of \$5000 or more gets the donor a personal invitation to view training sessions and the opportunity to "become a Husker Strength and Conditioning Coach for a day."81 Such is the prestige of the program that Epley built, that fans are willing to pay several thousand dollars just to pretend they have his job for a day, and many have done just that. According to Epley, the club has raised more than two million dollars in support of the strength and conditioning program at Nebraska.82 Thanks in part to the Husker Power Club, Nebraska athletes now train in the palatial Osborne Athletic Complex whose weight room includes twenty-eight multi-racks and twenty-three lifting platforms; a far cry from the handful of racks and benches on Epley's 1969 list—even with the equipment listed on Epley's "missing" second page.83

Epley's second contribution to the evolution of bureaucracy was to have a much more far-reaching impact. In September of 1977, before the Huskers kicked off a home game against the Alabama Crimson Tide, he was introduced to the commissioner of the Southeastern Conference, Boyd McWhirter.84 The commissioner enquired about the exact nature of Epley's position at Nebraska and then asked if Alabama had anyone in a similar position. Surprised that a conference commissioner could be unaware of the existence of professional strength coaches Epley decided that, to ensure the success of his fledgling profession, some kind of unification and professionalization of the field was in order. Consequently, he sent a letter to schools around the country to compile a national directory of strength coaches in 1978.85 He got back 377 letters and assembled the results into a ninety-page directory titled, The National Directory of Strength Coaches.86

Following the publication of the directory, a few coaches began discussing the idea of a formal organization for the profession. After discussing the idea with a handful of his colleagues over a series of months, Epley offered to host the first annual meeting of the National Strength Coaches' Association on July 29, 1978. More than seventy-five men made the trip to Lincoln. Most were not then currently called strength coaches, but they

were the men at their schools who directed the strength training of varsity athletes. At that meeting, Epley was unanimously elected Executive Director (no one was named president that first year) and a mission statement was written asserting that the NSCA proposed to "Unify its members and facilitate a professional exchange of ideas in the area of strength development as it relates to the improvement of athletic performance and fitness."87 Epley and these early pioneers knew that legitimization of the strength coaching profession rested upon their ability to prove that training really did improve the performance of athletes. And so, like many other professional associations, they used a scientific approach to the sharing of ideas by establishing a national conference each year, a series of regional clinics—the organizing of which was a mandatory part of the job description of the six new regional directors—and, in December of 1978, they began publishing an organizational newsletter.88 The first newsletter was sent to over eight-thousand coaches, YMCA directors, and other "interested people" across the country. The first edition promised "Each issue will be packed with the latest information on strength and conditioning for football, basketball, baseball, track and field, swimming, wrestling, gymnastics, women's sports, and more. We'll investigate and present the latest theories and research in the strength and conditioning field and present it in a fashion that is easily understood . . . you'll have the important information necessary to ensure that your athletes are trained at their best."89 This first issue satisfied both of the established needs of the emerging organization—increased awareness among strength coaches through the dissemination of the newsletter and the facilitation of the exchange of best practices in the field.

Epley's impact on collegiate athletics was now being felt on a national scale. By the end of the 1970's, nearly every major university in America had at least one person listed as a "strength coach," and the National Strength Coaches Association was quickly growing in size and stature. Part of Epley's reach came from the fact that many of these new strength professionals had worked with him as assistant strength coaches and graduate assistants. In fact, since he began work at Nebraska, more than sixty-four of Epley's former assistants have gone on to direct strength coaching activities at a variety of universities and professional teams. As they moved into their new positions, they continued to use the methods they'd learned from Epley. Boyd also actively disseminated information about the Husker Power system. He authored multiple books on strength and conditioning as well as an entire series on training "the Nebraska way,." for a variety of sports (football, swimming, wrestling, baseball, etc.) 90

Boyd Epley was not the first modern strength coach, but he is inarguably the most important. The Roman philosopher Seneca is often credited with saying "Luck is what happens when preparation meets opportunity,"91 and the aphorism certainly appears to apply to Epley's career. His personal experiences with a variety of strength training styles, and the extent to which strength training improved his own athletic ability, allowed him to be a knowledgeable and ardent supporter of strength training for athletes. When a back injury appeared to put his athletic career on hold, he inadvertently made strength training disciples of other injured athletes, particularly football players. His success in doing so was noted by an open-minded coach, Tom Osborne, who was keenly interested in the preparation that went into athletics. Once charged with improving the performance of the Husker football team, Epley quickly realized that innovation would be key to producing measurable gains for the team. "Early on," he says, "I decided that we [strength coaches] did not want to be weightlifters, powerlifters, or bodybuilders . . . I wanted to be seen as a strength coach that was working to improve the performance of an athlete . . . this was something new; this is strength training. It's not weight training for physical education, it's strength coaching that will actually improve performance for athletes."92 Important aspects of Epley's innovation were his solicitation of advice from professors at Nebraska and other knowledgeable individuals, the application of science to strength coaching by applying emerging theories about sport-specific training, and his willingness to constantly revise his training theories and program. In addition to his success as a practitioner of strength coaching, Epley founded the National Strength Coaches' Association, which rapidly revolutionized the profession and became, in 1981, the National Strength and Conditioning Association. Under his leadership, strength coaches evolved from a group of disparate individuals interested in improving athletic performance into a unified group of professionals with their own research-based academic literature. From its initial membership of seventy-six strength coaches, the NSCA has grown to a membership of more than thirty-three thousand members in fifty- six countries at the time of this publication.⁹³ Epley is still an integral part of the NSCA, having taken a full-time position with the organization as "Director of Coaching Performance" upon his retirement from Nebraska in

2006.94 In the end, Epley's career at Nebraska included playing an integral role in thirty-five years of Husker football that tallied 356 wins, five national championships, a host of Outland, Lombardi, and Heisman Trophy winners, and an indelible mark on the process of professional preparation for sports.

Notes:

The authors would like to thank Dr. Terry Todd who conducted an interview with Boyd Epley in the summer of 2009 and made the video available to researchers at the H.J. Lutcher Stark Center at the University of Texas at Austin.

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- 34. Todd, "Mythbreaker," 15.
- 35. Hoffman, Better Athletes, 222-223.
- 36. In 1962 the Chargers finished the season with a disappointing 4-10 record. In 1963, after Roy joined the staff, they went 11-3, and beat the Boston Patriots 51-10 in the AFL League Championships. "1963 AFL Standings, Team & Offensive Statistics," Pro-Football-Reference.com at: http://www.pro-football-reference.com/years/1963 AFL/. In recent years Al Roy's legacy has been tarnished by his alleged distribution of Methandrostenelone (trade name Dianabol), the first true anabolic steroid, to some members of the 1963 Charger's team. At that time, it should be noted, there were no rules against steroid use in any sport. However, although the advent of steroids in the world of athletics does confound any efforts to assess weight training's ability alone to enhance athletic performance, there is overwhelming evidence prior to the arrival of anabolic steroids on the sporting scene circa 1960 that progressive resistance training—by itself—could produce profound advantages in sports such as football . For more on this issue see: Matt Chaney, Spiral of Denial: Muscle Doping in American Football. (St. Louis, MO: Four Walls Publishing, 2009).
- 37. Todd, "Mythbreaker," 15.
- 38. W.A. Baker, "The Pete Dawkins Story," Strength & Health, December 1959, 36.
- 39. Jim Murray, "Stan Jones All America Football Star," *Strength & Health*, November 1954, 8-9.
- 40. Ibid., 35.
- 41. A catalog of these articles can be found in a piece by Terry Todd in the journal *Iron Game History*, titled "The Expansion of Resistance Training in US Higher Education through the Mid-1960s" 3, no. 4 (August 1994): 11-16.
- 42. G. Hooks, "Barbells on Campus: Wake Forest University," *Strength & Health*, November 1961, 49.
- 43. John Neumann, "Barbells on Campus: The University of California," *Strength & Health*, February 1962, 40-41.
- 44. Peary Rader, "Weight Training at University of Nebraska for Student Body," *Iron Man*, March-April 1960, 18-19.
- 45. It is probable that he witnessed athletes using a Universal Gym.
- 46. Boyd Epley, "Husker Power Timeline The Schulte Fieldhouse Years," at: http://www.boydepley.com/SchuleFieldHouse.pdf.
- 47. Boyd Epley, "Strength and Conditioning Timeline," http://www.huskers.com/ViewArticle.dbml?SPSID=183&SPID=41&DB_OEM_ID=100&ATCLID=8568.
- 48. Huskers.com, "Year by Year Results," at: http://www.huskers.com//pdf 5/638605.pdf.
- 49. Epley, Interview by Shurley.
- 50. Armen Keteyian, *Big Red Confidential: Inside Nebraska Football* (Chicago: Contemporary Books Inc, 1989), 65.
- 51. Ibid., 191.
- 52. Ibid., 38.
- 53. Epley interview by Shurley.
- 54. Epley interview by Terry Todd.
- 55. Epley interview by Shurley.
- 56. Ibid.
- 57. Ibid.



At the H.J. Lutcher Stark Center, Epley is one of thirteen individuals honored as icons in the history of physical culture. On a trip to the Center in June of 2010, Epley posed in front of his picture, located between Eugen Sandow and Bob Hoffman. Other honorees include Pudgy Stockton, John Grimek, Steve Reeves, Jack LaLanne, Arnold Schwarzenegger, Joe Weider, David P. Webster, Dr. Kenneth Cooper, Katie Sandwina, and John Davis.

- 58. Ibid.
- 59. Epley, "Husker Power Timeline Schulte Fieldhouse."
- 60. Shurley interview with Epley; and "Performance Index," in Epley, *Path to Athletic Power*, 157-161.
- 61. Allen Guttmann, From Ritual to Record: The Nature of Modern Sports. (New York: Columbia University Press, 1978), 16.
- 62. Ibid., 38.
- 63. Epley interview by Shurley.
- 64. Murray Sperber, *Beer and Circus: How Big-Time College Sports is Crip- pling Undergraduate Education* (New York: Henry Holt and Company, 2000),
- 65. Guttman, Ritual to Record, 39.
- 66. Keteyian, Big Red Confidential, 170.
- 67. Ibid., 46.
- 68. Epley interview by Shurley.
- 69. Ibid.
- 70. Ibid.
- 71. Terry Todd, "A Man of Heft Who's Also Deft," *Sports Illustrated*, November 8, 1982, 44.
- 72. Epley interview by Shurley
- 73. Guttmann, Ritual to Record, 5.
- 74. Epley, Husker Power Timeline Schulte Fieldhouse.
- 75. Hoberman, Mortal Engines, 5.
- 76. Guttmann, Ritual to Record, 40.
- 77. Ibid., 43.
- 78. Keteyian, Big Red Confidential, 57.
- 79. Epley interview by Terry Todd.
- 80. Husker Power Club "Welcome" at: tp://www.huskerpowerclub.com/hpc_welcome.htm.
- 81. Ibid., "Membership," Husker Power Club at: http://www.huskerpower-

club.com/hpc membership.htm.

- 82. Boyd Epley, "Husker Power Timeline The West Stadium Years" at: http://www.boydepley.com/WestStadium.pdf.
- 83. Mike Arthur email to Jason Shurley, July 12, 2010.
- 84. Scott McQuilkin and Ronald Smith, "The World's Source for Strength and Conditioning Information: A History of the National Strength and Conditioning Association 1978-1993," (Master's thesis, Pennsylvania State University, 1995), 8.
- 85. Epley, "NSCA Timeline."
- 86. Boyd Epley, The National Directory of Strength Coaches, (Lincoln,
- NE: University of Nebraska Printing and Duplicating, 1978).
- 87. Ibid. See also: Epley, "NSCA Timeline."
- 88 Ibid
- 89. Boyd Epley "Join the NSCA!" National Strength Coaches Association Newsletter 1, no. 1 (1978).
- 90. Boyd Epley, The Strength of Nebraska (Lincoln, NE: Body Enterprises, 1979); Boyd Epley, Cardiovascular Fitness . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1980); Boyd Epley and Tom Wilson, Weight Training Instruction Manual (Lincoln, NE: Body Enterprises, 1981); Boyd Epley, Body Composition Assessment: How to Gain or Lose Bodyweight (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Husker Power for '83-'84 (Lincoln, NE: University of Nebraska Press, 1983); Boyd Epley, Interval Sprints for Football . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Motivate Your Athletes . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Multi-Purpose Machine Exercises . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Neck Exercises . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Strength Training for Basketball . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Strength Training for Baseball and Softball . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Strength Training for Football . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Strength Training for Golf . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Strength Training for Racquet Sports ... The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Strength Training for Swimming . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Strength Training for Track & Field . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Strength Training for Wrestling . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Stretching . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Survivor Circuit Training . . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Test Your Athletes . . . The Nebraska Way (Lincoln, NE: AMF American Consulting Service, 1983); Boyd Epley, When How and Why to Begin Lifting Weights . . The Nebraska Way (Lincoln, NE: Body Enterprises, 1983); Boyd Epley, Dynamic Strength Training for Athletes. (Dubuque, IA: Wm. C Brown Publishing Company, 1985); Boyd Epley, Boyd Epley Workout for Football. (Lincoln, NE: Body Enterprises, 1988); Boyd Epley, Husker Power: Committed to Improving Performance. (Lincoln, NE: Husker Power, 1990).
- 91. Quote typically attributed to Roman philosopher Seneca, at: http://www.quotationspage.com/quote/4576.html.
- 92. Epley interview by Terry Todd.
- 93. Greg Nockelby, telephone interview with Jan Todd, July 7, 2010.
- 94. Boyd Epley, "Husker Power Timeline The Osborne Complex Years" at: http://www.boydepley.com/OsborneComplex.pdf .

To learn more about the history of strength coaching and see a video of Boyd Epley talking about his career, visit the on-line exhibition:

The Quest for Victory: An Illustrated History of Weight Training for Sports

www.starkcenter.org/research/web/guestforvictory