The Good Eye

MORE THAN 2,000 years ago, an Athenian cavalry officer named Xenophon who was eager to protect his readers from being cheated by horse dealers set down criteria for judging unbroken young stock. His treatise, called "On the Art of Horsemanship," urged horsemen to carefully observe the various bones and joints of the horses they were considering, because that observation could, he strongly believed, tell them a lot about how the horses would perform.

"The bones [of the pastern] above the hooves and below the fetlocks should not be too upright, like a goat's: such legs give too hard a tread, jar the rider, and are more liable to inflammation," Xenophon advised. "Nor yet should the bones be too low, else the fetlocks are likely to become bare and sore when the horse is ridden over clods or stones.

"If the colt's knees are supple when bending as he walks, you may guess that his legs will be supple when he is ridden, too," Xenophon continued, "for all horses acquire greater suppleness at the knee as time goes on. Supple knees are rightly approved, since they render the horse less likely to stumble and tire than stiff legs."

The hindquarters "must be broad and fleshy, that they may be in

right proportion to the flanks and chest, and if they are firm all over, they will be lighter for running and will make the horse speedier."

Xenophon's advice, it turns out, is not very different from the bloodstock agent's today. Neither is the quandary that has faced horse judges and gamblers before Xenophon and since: That horse looks all right, but can he run?

Good conformation does not necessarily translate into good action. As the 19th-century English sporting editor J. H. Walsh wrote ruefully in *The Horse in the Stable and the Field*, "It will sometimes be found that the frame which looks nearly perfectly symmetrical while at rest becomes awkward and comparatively unsightly while in motion, and the horse which is expected to move well will often be sent back to his stall with, "That will do, thank you," after a single run." Even good conformation and action together have never been certain proof of racing talent.

Horses have been running counter to their looks for time immemorial, as Walsh pointed out. "The winner of the 1860 Derby went a-begging, and was at last bought for a very moderate price," he wrote. "So also with Butterfly, the winner of the Oaks; no store was set upon her until she came to be tried; and even on the morning of the race she was not thought good enough to win. The celebrated Blink Bonny was a mean-looking mare, and would not have fetched fifty pounds at Tattersalls, from her appearance alone."

Appearance definitely counts at a horse auction, particularly at yearling sales, where there is little way to analyze a horse's running ability. Historically, horsemen have judged certain appearances to be actual physical flaws, as in the long-standing prejudice against horses with white feet. For centuries, they considered white feet to be softer and therefore less hardy than dark ones. That impression was so entrenched that a proverb about it was already timeworn in 1659, when a printer published it in a book of beloved maxims:

A four white-foot horse is a horse for a fool A three white-foot horse is a horse for a king And if he hath but one, I'll give him to none.

Today's buyers are less apt to dismiss a horse with four white feet, but there are new bugaboos such as entrapped epiglottises

and OCD lesions (a problem caused by improper cartilage development) that make them reluctant to bid.

Horse shopping is no longer a life-and-death issue, as it undoubtedly was for Xenophon's cavalrymen, who essentially were selecting weaponry when they bought a horse. But, financially speaking, the stakes for today's buyers are higher than ever, especially if they are seriously seeking a horse capable of making the seamless transition from million-dollar yearling to champion to profitable stallion.

To have a shot at championship status, a horse must win Grade 1 races, the sport's highest level of competition, which includes (but is not limited to) the Triple Crown and Breeders' Cup events. And those starting gates can have a pretty steep admission price. Between 1987 and 2002, the average cost of publicly sold Derby winners was \$472,636, ranging from 1998 winner Real Quiet, sold for about the price of a Toyota Corolla at \$17,000, to the 2000 winner, Fusaichi Pegasus, who cost more than a garageful of Bentleys at \$4 million.

The point, as bloodstock agents and trainers repeatedly tell their clients, is this: In general, your best chance to succeed in racing is to buy the most proven bloodlines in the most athletic body. And that combination costs money. Satish Sanan's splurge on Vindication, who then went on to be a champion and the early favorite for the Derby, was just the most recent example to shore up that point.

Even though he did not make it to Churchill Downs, Vindication's success in the Breeders' Cup helped guarantee him an enthusiastic reception in his first year at stud. A passionate buyer such as Fusao Sekiguchi or Satish Sanan may feel his heart flutter over a horse he has decided to bid millions for. But like a bridegroom with a prenuptial agreement for his intended, he also is coolly calculating more practical issues. In the case of a Thoroughbred, those issues include residual value.

A well-bred yearling who never gets near the Derby starting gate can still become a moneymaking stallion if he can string together a few impressive wins. In fact, the market for stallions now is so vast that even a well-bred horse with a limited race record can sometimes find a home as a stud in a smaller market such as, say, New Mexico,

or overseas. A spectacularly bred colt who has a race record to match, well, that's the ultimate home run horse, a runner that can turn his race record and genetic material into a profit-making business for as long as he lives and is fertile.

The same is true for fillies who become great broodmares, but their prices and moneymaking value are necessarily less than a stallion's, because a stud can produce millions annually in breeding fees while a mare can have only one (potentially imperfect and unfit for market) foal each year.

At least since the commercial Thoroughbred market shifted into high gear in the mid-1980's, a horse's residual value has been a key consideration for almost every major auction buyer who is serious about both winning and turning a profit in the game. Prices have skyrocketed for those gifted horses with promising pedigrees and athletic bodies combined, and business-minded buyers such as Satish Sanan have entered the game with an eye toward making those horses not just winners, but also profitable winners. Consequently, the competition has intensified to correctly identify which yearlings eventually will be great and which ones merely mediocre, or outright duds.

But looking for a Derby horse at the yearling sales, as one regular buyer put it, is like recruiting a professional football team out of a class of third-graders. It is a highly speculative and subjective process. With so much money on the line, and with so much room for error, it is hardly surprising that an entire industry has grown up to help owners separate the equine wheat from the chaff.

Like bettors looking for a "perfect system," buyers flock to new technology and theories they think might improve their chances of picking a winner. There are biomechanics specialists who measure key aspects of the horse in search of ideal proportional relationships that suggest balance and efficiency of motion. There are researchers who study the relationship of heart size and breathing capacity to racing performance. There are X-rays, endoscopic exams, and heart monitors. All the theories and machines, and all the experts behind them, are geared toward helping the buyer minimize his chance of picking a loser.

The desire to reduce that risk keeps veterinarians such as Dr. Craig Van Balen busy and well paid. Van Balen, who is based in

Lexington, Kentucky, frequently travels the circuit of major yearling auctions. He and his colleagues can be seen at every big horse sale, moving rapidly from barn to barn, towing luggage dollies with complicated-looking devices stacked on board, electrical cords and flexible endoscope tubing looped event to inchest.

flexible endoscope tubing looped over their shoulders.

The stronger the market for yearlings, the more grueling Van Balen's schedule is. His three-member vet team examined about 100 horses, or nearly half the catalog, at Saratoga's 2003 auction, and that, Van Balen said, was a slow sale for him. The vets' job description often covers both sides of the auction transaction. They do pre- and post-sale exams for bidders, but they also help consignors with sale horses that develop fevers or colic.

Consignors often complain that buyers can be too selective. But Van Balen pointed out that a bidder's decision to pass or fail a yearling for what he called a "bloodstock portfolio" comes down to much the same issue an investor faces with a stock portfolio: his

attitude toward risk.

"A little radiographic lesion doesn't scare some clients, but others aren't risk-takers and want a horse to be absolutely radiographically clean," Van Balen said.

For much of the last decade, auction companies like Fasig-Tipton have offered repositories for consignor-provided X-rays (also called radiographs) and endoscopic videos on the sale year-lings. That has not prevented bidders from wanting their own vets to examine the horses. But Van Balen said the repository system has speeded up vets' and buyers' understanding of what flaws are likely to compromise a horse's eventual racing career.

"We've learned a lot, and our level of comfort with certain radiographic lesions has gone up considerably," he said. "We realize now that particular kinds of lesions have a great prognosis

and have no detriment to a horse's racing career.

"Clients come off horses for a number of different reasons: conformation, the horse looks tired and is dragging his feet, the client didn't like the way the horse handled the challenge of being at the sale ground," he added. "The idiosyncrasies of buyers are very wide. But I think buyers as a whole at yearling sales are much more educated and have a better understanding now of what the results of these examinations mean. If anything, I think they're better

informed and more tolerant of things not being exactly textbook perfect. They want things to be within a range of normal, but that range has expanded for them."

Today's Thoroughbred buyer, armed as he is with veterinarians, trainers, and pedigree analysts, has an unprecedented amount of data and technology to help him pick a winner out of the yearling sales. But his primary tool, the one he will use first, is the same one that countless generations of horsemen from Xenophon to Sheikh Mohammed al-Maktoum have used: the "eye for a horse."

Even J. H. Walsh, having provided the bruising list of rejects who went on to English sporting glory, returns nonetheless to the "good eye," saying, "Still, it cannot be denied that a good judge will select the ten best horses out of twenty, or perhaps out of a hundred; but he will possibly leave the very best out of his list. The theoretical rule is simple enough, but it requires great experience and a good eye to carry it out in practice. It is simply this . . . the horse which is formed in the mold most like that of the greatest number of good racehorses, will run the best."

In the Thoroughbred auction world, the person with an eye for a horse is king. He is almost always for hire. And, no matter how lofty his reputation, he will begin the same way Xenophon did: by pulling a horse out of the stall and watching him walk.

Buzz Chace consulted the catalog page, then considered the yearling before him. It was a warm, cloudless September morning in Lexington, and the Keeneland Association's stable area was a hive of activity in preparation for its two-week September sale, the largest Thoroughbred yearling auction in the world. The colt Chace pondered was one of nearly 1,800 currently on the grounds, and one of almost 4,300 that ultimately would go through the ring. In the course of the auction, the rest of the cataloged yearlings would rotate through Keeneland's green-trimmed cinder-block barns, and Chace would look at roughly a quarter of them in hopes of finding some good horses—and, if possible, some bargains—for his clients.

Chace, one of the Thoroughbred business's most successful bloodstock agents, is a 30-year auction veteran. During his long

career, he has selected horses for some of the world's most daring spenders, including game-show mogul Roger King, Oregon timber executive Aaron Jones and his wife, Marie, and real estate investment trust owner B. Wayne Hughes.

Chace has half a dozen regular clients who buy horses at prices from \$25,000 to \$2.5 million, and he often picks up additional work from several other buyers and agents who recruit him while he is at a sale to look at or bid on horses. The wide economic spread of his clients, and the fact that he is an inveterate bargain hunter, make the Keeneland September sale a perfect market for Chace. The two-week auction offers yearlings of every kind: cheap and expensive, horses bred to sprint and to run long, on turf and on dirt. There will be something for almost everyone on Chace's shopping list. He will sift through the sale's first two days—the so-called select days, where the stock has met stricter pedigree and conformation criteria—for clients like Aaron and Marie Jones. The Ioneses, like many players at the highest level of the market today, are primarily interested in blue-blooded racing prospects that can be parlayed into high-class, moneymaking stallions, a program that demands good, though expensive, pedigrees.

But Chace will also buy on behalf of clients like West Point Thoroughbreds, a public stable that targets horses in the \$50,000 to \$200,000 range, syndicates them, and races them for the ownership groups. West Point's primary emphasis is on the thrill of racing, rather than on long-term breeding potential, and that means they will compromise on pedigree more than on athleticism. For them, Chace will leaf through the sale's later catalogs, looking at literally hundreds of yearlings in search of a promising horse that has slipped through the cracks, maybe because of a slightly obscure pedigree or a cosmetic flaw that Chace feels the horse can overcome on the racetrack.

Chace's strengths, his clients agree, are an exceptionally sharp eye for a horse and a tireless work ethic, a pair of essential requirements for bargain hunting. Those two assets have helped him become unusually adept at turning profits for his clients, and that keeps him on the road. Chace has houses in New Jersey and Florida, but he rarely gets to enjoy time off at the beach. The mailbox is constantly full of new sale catalogs, and Chace's clients are

hungry for horses. Walk into a Thoroughbred yearling or 2-year-old auction in Maryland, Florida, New York, Kentucky, or California, and chances are you'll find Buzz Chace, catalog in hand, looking at horses. Before flying to the 2003 Keeneland September auction, Chace bought six horses at Saratoga for \$1,755,000. Earlier in the year, at a Miami 2-year-old sale, he signed for three that cost a total of \$1,250,000. That spending ability makes Chace a commanding presence in a seller's barn.

This particular Keeneland yearling—a tall, rangy chestnut colt—looked pretty good to Chace when he first came out of the stall. But he began slipping out of favor the longer Chace looked at him.

"He's a nice, big horse, but then you start pulling him apart," Chace explained, gesturing with the ballpoint pen he carries to make conformation notes on catalog pages. "He's got one heel lower than the other. Looks like he's got a clubby foot there. But all in all, he's not a bad horse."

Chace turned to the handler, a blond woman dressed like all the other handlers in this consignment, in khaki pants and a buttondown oxford shirt.

"Can you go down there with him, please?" Chace asked.

The handler turned the colt and walked him away from Chace, down one side of a dirt walking ring in front of the barn. Silently, Chace watched the yearling's back end, his hocks, where and how his back hooves fell in relation to his front hooves and in relation to each other. The handler turned the colt again at the end of the straightaway and strode back toward Chace, who now had a head-on view and was scrutinizing the colt's knees.

So was the seller, who stood at a discreet distance behind Chace. He was holding a black three-ring binder that bristled with color-coded tabs, one for each horse in the consignment. The binder contained notes that were not included in the catalog pages, either because they had happened too late to be printed or because they were not part of the catalog's standard information: fast workouts, promising race results, and good sale prices that this yearling's relatives had achieved, anything that added luster to the horse on offer. The seller was overseeing five or six yearlings that were being shown simultaneously to various buyers and agents, but he was keeping an especially close eye on Chace, whose approval of a

horse could make a significant difference to the consignment's profit margin.

"I'm taking too much time with him, really," Chace said in a low voice as the colt walked toward him. "He's got bad knees, he's too narrow up front in his chest. But sometimes you have to be diplomatic. The seller's right there looking at them, too."

Before the handler could stop the horse in front of him again, Chace nodded at her and said, "That's fine, thanks," the universal words of dismissal at a horse sale. The handler kept walking and took the colt straight back to his stall. The consignor, who also held the list of horses Chace had requested to see, silently beckoned toward the barn and another handler immediately brought out another colt.

Chace had been making his way from consignment to consignment since 6:30 A.M., and he would keep going until the barns closed down to feed the horses around 4:30 P.M. He would look at every horse selling in the first four days, a total of about 1,300 yearlings, plus a handful selling later, in the auction's less fashionable second week.

"You have to look at that many," Chace said. "You don't want to miss the individual."

By the end of the sale, Chace would buy just 16 of those "individuals" for prices ranging from \$25,000 to \$300,000.

Sifting through so many horses is tedious, tiring business. At big auctions like Keeneland's, Chace is on his feet almost constantly for 10 hours or more, turning catalog pages, scribbling hieroglyphic conformation notes in the white spaces, watching—and usually rejecting—yearlings as they stride up and down the walking ring.

The reasons Chace rejects a horse are highly variable.

"See that pig eye?" he said of one nearly black colt, a grandson of the redoubtable and much sought after stallion Storm Cat. "He's no 'count."

Chace warmed to a handsome colt by former 2-year-old champion and new sire Anees, whose first yearlings were on offer, until he saw the colt move. "How 'bout that walk?" he said to no one in particular, shaking his head. "He throws that hind leg out pretty good."

He made a note in the catalog. "Too bad, because he's a nice horse."

Chace's criteria for a good horse are hard to describe, but, like every agent, he knows one when he sees him. "I like for all the parts to fit together," he said. He likes a refined head; a body that looks as if it will improve with time and growth; a large, bright eye; a powerful rump; and a back that isn't too long.

"A neck like Cher, and a butt like Charles Barkley," a nearby

consignor offered helpfully.

"Yeah, that's it," Chace said, smiling.

Chace prefers good, straight legs, because crooked legs and offset joints can add stress during training and racing. But most horses are not flawless, and Chace can forgive some faults.

"Horses run through most everything," he said. "I can live with an awful lot of stuff."

It is Chace's job to weigh the various aspects of each horse's pedigree and build, then to come up with an overall rating and estimated price range, and advise his clients on whether or not to bid. He will also arrange veterinary inspections for short-listed horses, bid for his clients, and arrange to ship the horse from the sale grounds to its next destination, usually a farm or training center. Understandably, Chace's time is valuable, and he is quick to dismiss a horse that doesn't catch his experienced eye.

"I like to be nice about it, but as soon as a horse comes out of its stall, I either like it or I don't," he said.

That's not to say he's not flexible. Looking at one gray colt who stood with his front feet turned slightly out, Chace told the consignor, "He toes out, but that doesn't bother me much. Last horse I faulted for toeing out is racing now in Maryland, and every time I look up, he's beating me."

A filly by Irish-bred grass-racing champion Theatrical gets rejected on her pedigree, even though it's a good one. Her dam is by Kingmambo, an expensive stallion who is himself the son of the legendary female grass champion Miesque. It's a high-class family that would appeal to the British and European racing scene, where grass racing dominates. But Chace's clients all race in America, where there are fewer races for turf runners, and therefore less opportunity for their owners to make purse money. In America, many horses are pointed to turf racing only if they are unsuccessful on the more common dirt surface.

"This horse is grass only," he said, pointing at the pedigree. "I can't use her."

What Chace can and can't use is largely dictated by how his clients define a home run horse.

"I'm looking mostly for colts that will make a stallion or horses that look like they'll really run," Chace said. "That's what everybody's looking for. Most of the people I'm looking for would love to have a stallion. People like the Joneses go into a yearling sale thinking way long term. A lot of my other owners are mainly looking for runners, and it would be a big dream for them to have a horse that could also go on and stand at stud."

Chace lived that dream himself, starting in 1994 when he bought the gray yearling that is largely responsible for his clout as a buying agent today.

Buzz Chace's eye for a horse is not just a mystical gift from the heavens. It is the product of a lifetime with horses. Chace grew up in southeastern Massachusetts, where he got his start riding highstepping three- and five-gaited Saddlebreds at a show barn. At 16, he dropped out of high school to make his living full-time with horses. He found work at a Rhode Island Thoroughbred farm, learned how to gallop racehorses, and eventually ended up at the track, which offered a faster pace, unlimited opportunities to learn about horses, and niche jobs with which a racetracker could string a living together. Chace exercised racehorses and groomed them, and then he took a job that accelerated his understanding of the consequences of poor equine conformation: assistant to a racetrack veterinarian. Chace saw more than 100 horses a day, an exposure rate that inevitably revealed patterns any horseman would learn from: which conformational flaws contribute to which injuries, what physical traits horses can and can't overcome, and what faults are purely cosmetic.

Working for the veterinarian, he did X-rays and learned equine dentistry, a job that involves fitting the horse's mouth with a brace that keeps it open while the practitioner reaches in with a six-inch rasp, then files down rough-edged teeth that can actually cut a horse's mouth. It was hard work, but Chace learned about horses

from the inside out, and he began to form opinions about what flaws really matter to performance and what faults can be fixed or even ignored. In his years on the racetrack, he also shod horses, a job that gave him a close-up perspective on the all-important equine hoof. He trained a few runners, bought and sold some for a handful of clients, and lived off his betting a time or two.

By the time he was 50, Chace had put together a solid career as a bloodstock agent and was making a good enough living to raise two children. And then, suddenly, he got the big buyer and found the big horse.

The big buyer was Ernie Paragallo, a 36-year-old Long Islander. Like Chace, Paragallo was a high-school dropout, but he waited to get into the horse business until after he had made his millions in investment banking and computer-software development.

Paragallo, an intense man with glowering eyebrows, wavy black hair, and a fondness for wearing black ensembles with black cowboy boots, had never bought a horse at auction before. He had gotten Chace's name from a New Jersey horse trainer and gave him a try partly because he knew Chace had identified and bought a nice stakes winner named Meadow Flight for another client.

Paragallo may not have had experience, but he was game and ready to take risks. He loved the action enough to try "pinhooking," the high-wire art of buying yearlings, breaking them and giving them their early training, then reselling them at a profit the following season as ready-to-race juveniles. Yearling-to-juvenile pinhooking is one of the riskiest avenues a horseman can take. When he buys his inventory, he has to scratch up bargain horses that others have rejected or overlooked but that have the potential to mature quickly and turn a big profit six or eight months later. Even when a pinhooker buys exactly the right yearling for the task, he runs a greater risk that the horse will injure itself in the process of breaking and training; he also runs the risk that once the horse is ready to be clocked over short workouts it will simply be slow. But Paragallo was fearless. He also had enough money to secure the better resale prospects, which made Chace's job somewhat easier, and he trusted Chace's judgment absolutely.

Chace found Paragallo's star, Unbridled's Song, at Saratoga's 1994 yearling sale. The colt was one of the first foals of 1990

THE GOOD EYE

Kentucky Derby winner Unbridled, who was himself well bred and clearly accomplished, but as yet unproven as a stallion. Chace liked two things about Unbridled as a sire.

First, he came from a long male line that was legendary for its quality. His father was Fappiano, a blazing speedster who set a record for six furlongs but also won classy races going beyond a mile, and his grandsire was the great Mr. Prospector, another speedball. That brilliance had been harnessed and stretched out effectively through the influence of Unbridled's dam, Gana Facil, so that Unbridled had received the golden genetic combination of speed and stamina. Given the sire records of Unbridled's father and grandfather, Chace thought it was a good bet that Unbridled would also pass along his talent.

Second, Unbridled had won first time out at age 2 in dramatic style, leaving his rivals behind by 10 ½ lengths. That told Chace the colt he was considering could mature quickly enough to become a precocious young racehorse or a showpiece at a 2-year-old sale.

All that potential was offset somewhat by the yearling's dam, a nondescript runner named Trolley Song who won just once, going a distance on the grass. She had been offered at auction while carrying the Unbridled colt, but her seller had bought her back when bidding stopped at \$90,000.

But the sire line had potential, and, most of all, Chace just loved the way this yearling looked. There were no real faults, and the horse had an impressive, confident bearing that Chace found irresistible.

Paragallo bought the Unbridled colt for \$200,000 and added him to a draft of horses destined for the following spring's 2-year-old sales in California.

Chace was right about Unbridled's Song. Once the colt got a saddle on his back and started working, it quickly became obvious that he had million-dollar talent. By the time he reached the Barretts auction facility in Pomona, California, Unbridled's Song was blitzing through his eighth-mile workouts in times so fast his owner began making wild predictions.

"He's going to sell for more money than any 2-year-old ever has," Paragallo told reporters. "I'll be disappointed if he doesn't make a million dollars."

Turf and auction-ring regulars snickered. But when selling started at Barretts in March 1995, it turned out that Paragallo's flamboyant prediction had been too conservative. The hammer fell at \$1.4 million, a world-record sale price for a 2-year-old.

The sales world was stunned, but the story wasn't over. The buyer, Japanese racehorse owner Hiroshi Fujita, had ordered postsale X-rays of the colt's legs. An X-ray of the right front ankle came back with a shadow that Fujita said was a bone chip. Fujita wanted to return the colt. Such a difference of opinion usually leads to arbitration, but Paragallo, again to the astonishment of his peers, immediately took back his world-record colt.

"They've just made the biggest mistake of their lives," he said afterward. "They'll never find another horse as good as this one. I didn't want to sell him anyway. We're going to win the Breeders' Cup with this colt, and they're going to wish they never brought the matter up."

"But I was devastated," Chace recalled. "I knew there was nothing there in the X-ray. Maybe they just wanted to offer us less money for the horse. So now I'm feeling bad, because in the beginning Ernie said, 'I'm going to give you 5 percent for buying him and 10 percent for everything we sell.' I was going to get \$140,000 for my 10 percent—so I also felt bad about *that*."

Even without Unbridled's Song, Paragallo and Chace had an enormously profitable year. In their first season of pinhooking, the team made \$4 million by selling 2-year-olds they had bought for \$1.7 million just eight months earlier. Their success was unprecedented. Paragallo was brash, but he had turned out to be right when it counted, thanks in large part to Chace's eye for a horse.

It turned out Paragallo was right about the Breeders' Cup, too. Eight months after his failed sale, Unbridled's Song won the \$1 million Breeders' Cup Juvenile by a neck and immediately became the hot favorite for the 1996 Kentucky Derby.

Unbridled's Song had become a star with seemingly unlimited potential. Paradoxically, Ernie Paragallo had been lucky to have a bad X-ray at the auction. The hapless Hiroshi Fujita, meanwhile, had been tripped up by the precision technology intended to help him. He unwittingly had tossed away a winning lottery ticket whose stud value was now worth between \$10 million and \$20 million.

Even veterinary X-rays, after all, were subject to the eye's interpretation.

In the Breeders' Cup win picture, the smiling man holding the trophy was Buzz Chace. He had good reason to smile because now he also owned 10 percent of Unbridled's Song.

"A week after the Barretts sale, Ernie said to me, 'About Unbridled's Song. You own 10 percent of him right now, for whatever he does: stallion, racing, whatever," Chace said. "So that \$140,000 I would have gotten from the Barretts sale, forget it. I owned 10 percent, and that equals four shares in him as a stallion, too."

Those shares, which include one breeding right apiece for each year Unbridled's Song stands at stud, have appreciated considerably. In 2004, the stallion carried a \$125,000 stud fee.

"I think Buzz Chace has the best eye for a horse of anybody in the country," Paragallo said after the Breeders' Cup trophy ceremony. "With the results we've gotten in racing and pinhooking, I don't think too many people should argue with that."

Chace had found Unbridled's Song, but he couldn't hold off the stresses of training and bad racing luck. Paragallo's amazing run petered out eventually, and at the worst possible time: Derby Week. The problem started as a small crack that trainer Jim Ryerson discovered in Unbridled's Song's left front hoof after the colt handily won his last Derby prep race. Such cracks are fairly common and easily fixed. Ryerson had it patched with acrylic, the standard treatment, and the colt was sent to Churchill Downs as the Derby's heavy favorite.

Things promptly got worse. Six days before the race, Unbridled's Song came in lame from a routine gallop; the acrylic patch had caused a bruise and a small infection where it folded under the hoof. Ryerson hastily arranged to put different shoes on the colt to relieve pressure on the area. Chace pitched in to help, soaking the colt's sore foot in a tub.

Two days later, at the traditional draw for Derby post positions, Unbridled's Song was unlucky again: he got post 20, on the far outside of the track. When another horse scratched, Unbridled's Song got to move in one path to post 19, but no horse had ever won the Derby roses from there, either.

THE HOME RUN HORSE

It all added up to defeat. Unbridled's Song, considered even by rival trainers to be the best horse in the race, finished fifth.

"It was a shame," Chace said. "It was bad timing, and timing's everything."

Even so, Unbridled's Song was exactly the sort of life-changing horse everyone wants. Bob Baffert—whose first Derby starter, the gelding Cavonnier, was stabled in the same barn at Churchill with Unbridled's Song—got a tantalizingly close view of the strapping gray every morning during Derby Week as the horses went to and from their morning workouts.

Cavonnier was a big runner for Baffert, but he literally lacked the cojones to complete the magic circle from racing hero to profit-making stud. It was a critical difference that made Unbridled's Song the bigger horse, and Baffert knew it.

The day before the Derby, Baffert made a confession that wasn't very elegant but probably spoke for most of the owners and trainers at racetracks across the nation.

"Unbridled's Song," he said reverently. "I'd swim in a river of gasoline with a torch up my ass to get that horse."

The Unbridled's Song story is about the triumph of the good eye, and about the limits of technology. But where does the good eye come from and how does it work? Many people—veterinarians, breeders, and even engineers—have tried to explain it, duplicate it, and, where possible, bottle and sell it.

In 1998, a research team at Colorado State University began a study that is attempting to analyze equine conformation objectively, with the help of computer software. The goal, according to research chief and veterinary orthopedic surgeon Dr. D. Wayne McIlwraith, is to develop a more standard and objective approach to conformation analysis for the average horseman.

The study analyzed five crops of foals born in the late 1990's, from the successful breeding program of Daniel Wildenstein. The team measures 39 lengths or angles on each horse annually—including withers height, foreleg length, and shoulder, fetlock, and pastern angles. They also attach markers to a specific set of "anatomical landmarks" that served as reference points, and they

photograph the horses with the markers in place each year. Analyzed by computer, the photographs and measurements have revealed how a horse's conformation changes with age.

The findings so far have been interesting but not revelatory for horsemen like Chace: Angles tend to straighten as a horse grows, and many of the horse's bones work together in motion, so proportionality is important.

But the researchers, like Chace and every other person who has tried to find a good racehorse, have been unable so far to find the foolproof system.

"We do find exceptions to everything," McIlwraith said. "You can't be dogmatic about it. We've seen some horses with bad conformation go on and do quite well. We'll end up with percentages, predictabilities. What we're doing is validating what some of the experienced horse people know themselves and putting numbers on what has always been a subjective feeling."

If he were dropped onto a modern sale ground, the ancient horseman Xenophon would spot a sympathetic soul in Buzz Chace. But he probably wouldn't know what to make of Cecil Seaman. Neither did many sellers in the 1970's, when Seaman first started asking to go in their yearlings' stalls with a tailor's measuring tape. The idea of a "subjective feeling" about a horse's conformation is anathema to Seaman, who has labored for more than 30 years to compile a firmer standard for predicting performance.

People have been measuring horses for more than two centuries, trying to find correlations between bone length and performance. But only a few have been able to make an entire profession out of it. Seaman has, mainly because of two things: the computer and the buyer's eternal desire to find an edge.

Since about 1972, Seaman has been taking horses' measurements, plugging them into a computerized database, and running them through formulas he has devised. The result is a system Seaman believes can predict racing success more accurately than the subjective human eye.

"There are a lot of old wives' tales and traditions that don't really amount to much in the Thoroughbred racehorse," Seaman said. "Every horse person you talk to has a different opinion about how a horse should be made. It's deceiving, because you can take the

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same horse and show it to eight or ten different people, and you'll

get eight or ten different opinions."

What Seaman's formulas give him are scores for three factors he believes are critical in racing performance: point of gravity, efficiency, and leverage. At its most basic, Seaman's work attempts to determine which horses are the most balanced and efficient movers—exactly the same thing the good eyes are looking for. But Seaman is convinced such things can be determined objectively, and that objective measurements and comparisons, unlike the

biased eye, make far more accurate judgments.

Seaman won't divulge the details of his formulas. But he describes his database as a file that started with the measurements of a core group of champion racehorses and has expanded to include more than 60,000 horses. Seaman's program essentially stacks a horse up against the known measurements of the sport's great runners. Horses that are built like champions should, in theory, run better than those who are vastly different from them; horses that are like their relatives should run something like those family members, and ones that are out of kilter with their families will probably perform differently, too. It sounds like common sense, but Seaman believes his measuring tape and computer database can turn up surprising information that the eye won't find on its own—in other words, that the database creates an edge.

The son of a photoengraver in Springfield, Ohio, Seaman grew up among the slide rules, proportion scales, and complex cameras his father worked with, an experience he called "pretty good train-

ing about the importance of proportionality."

Like his father, Seaman also had a mechanical bent. He designed part of a rotary engine when he was still in high school.

"That was before the Henkel engine even came on the market," he said. "I was going to try to get patents on part of my design, but it was going to cost something like \$60,000 to build the prototype, so I didn't."

Seaman also liked horses, and he eventually bought a Quarter Horse foal for himself in the 1960's. It wasn't long before he was training a few at Ohio's Quarter Horse tracks.

"But there wasn't any money in Quarter Horses, not in Ohio," he said. "So then I got some cheap Thoroughbreds, and I started won-

dering why some cheap Thoroughbreds would get outdistanced by 20 or 30 lengths by the competition. I started asking these questions. I already had the exposure to proportions and mechanics from working on that rotary engine, and then I got into biomechanics. There's gotta be a reason everything works."

The reason some horses work better than others, Seaman figured, has to be related to the way their various parts operate together. The more he thought about the engine analogy, the clear-or it seems of the latest seamand to be a season of the seamand to be a season of the season of

er it seemed to him.

"I forget how many moving parts there were in a regular V-8 engine, but I tried to make a rotary engine with less moving parts, less friction, so it would be more efficient," he said. "It's the same way with horses. When one horse has 20 percent more leverage in some bones than other horses, and there's less mass, they're just a lot more efficient."

Seaman started reading anything he could find on racehorse biomechanics, starting with historical measurements from some of the great racehorses. The practice of taking superior runners' lengths and angles was not a new idea. A prominent veterinarian named St. Bel took extensive measurements of Eclipse twice, once when the horse was 24 and again for confirmation after the horse's death in 1789. Seaman also found references in texts from the 1890's, including one that compared the skeletal structure of the cheetah with that of the racehorse. Federico Tesio, generally regarded as one of the greatest breeders of all time and the man responsible for breeding the great sire Nearco, took meticulous records of his foals' measurements. And another veterinarian, Dr. Manuel Gilman, had recorded champions' basic measurements in a reference book called *The American Racing Manual* for several decades.

"But all that was before they really had computers, so no one was really doing much with the measurements, and everybody measured things differently," Seaman said. "They were just measuring different things they thought were important at the time. They would measure the angle of the shoulder compared to the ground, the angle of the pastern compared to the ground, and the length of the pastern. I did that for a while, too, but I didn't find any correlation with the measurements and performance.

"When I worked on engines, I knew that everything was about relationships, how the parts were proportioned and how they worked together. The angles of bones to the ground isn't as significant as everybody thinks they are. That kind of describes the horse, but they were really just measuring different parts of the horse that they liked, not the relation of parts that function togeth-

er. We're measuring proportions."

St. Bel's analysis of Eclipse revealed the great racehorse and sire to be oddly configured: long and set on a slight downward slant, with hips higher than his withers, and an unusually long neck. Even today, there are buyers who wouldn't like the looks of such a horse, particularly that downhill build. But Seaman points out that looks can be deceiving, as they might well have been with Eclipse.

"There's no way you can just look at a horse," Seaman insisted. "You have to measure them. When you look at them, there's an optical illusion. There's an optical illusion when you look at just about everything. A horse that is fit will look taller and longer than one that is let down and has a little belly on him. Nobody can tell just by looking at a horse exactly how tall it is or how much leverage they have. You have to actually physically measure a horse to determine those things."

Having decided back in the early 1970's that proportion was the issue, Seaman began taking his measuring tape to every possible Thoroughbred. On a visit to Newmarket, England, he even got special permission to measure a life-sized bronze of the famous

English champion sire Hyperion.

"It was very funny," Seaman recalled. It certainly must have been funny, the intense, wiry, middle-aged American clambering around the statue with a tape, as if trying to fit it for a suit. But that wasn't what Seaman meant. "It was funny because that bronze measured almost identical to Northern Dancer. Northern Dancer has Hyperion in him. He had Native Dancer in him, too, but he took after Hyperion."

Cecil Seaman measures about 2,800 yearlings annually, looking for horses that his formulas tell him fall within the top 12 percent of the equine population—in other words, those that are closest to

champion proportionality. He begins his year at Keeneland's January sale, a week-long auction populated mainly by heavily pregnant mares and young horses that were weaned in the fall and officially became yearlings on the universal Thoroughbred birthday, January 1. The temperature on this particular day was in the 20's, and recent snow had been plowed into foot-high mounds along the edges of the walking rings between the barns.

Seaman and his assistant, a tall young woman named Martha Hamner, whose face was barely visible between her wool hat and a scarf wrapped thick and high around her neck, had been at Keeneland since about 8:00 A.M., getting the first view of the season's new yearlings. Seaman's hands were bare. "Can't measure with gloves on," he explained.

Hamner carried a clipboard of papers, including a list of barns and hip numbers the pair would visit, but Seaman carried only a handful of metal-cased tape measures, which he kept in the pockets of his green canvas coat.

"I've got two or three of them in here," he explained, patting one of the pockets, "in case we have a mechanical breakdown. We buy them by the gross from Stanley. Some last longer than others. Some, the spring will break in two or three weeks, and others will last three or four weeks."

In his khaki baseball cap and Gore-Tex hiking shoes, Seaman looked more like a racing fan than The Thoroughbred Analyst, the descriptive subtitle he uses on the business cards for his Cecil Seaman & Co. Partly this was because he carried none of the accessories that subtly distinguish the tire-kickers from the serious buyers—most notably, the traditional dog-eared sale catalog, a small stack of coil-bound supplements that provide extra information on the catalog's pedigrees, and an ink pen on a cord around the neck.

"I don't carry a catalog," Seaman said. "I just have a list of barn numbers and hip numbers. I don't want to be influenced by pedigree or anything when I look at a horse."

Seaman walked through barn after barn, deftly wending his way around the groups of muffled bloodstock agents, breeders, and farm managers who were looking at horses. The in-foal mares, slow and stately, cruised around the walking rings or stood nobly for examination, their bellies hanging almost to a point underneath

them. Yearlings, electrified by the hubbub and the frigid breeze, leaped this way and that on the ends of their lead shanks, and everywhere horsemen were patting horses' necks, running their hands down legs, consulting catalog pages.

Seaman arrived at the Eaton Sales consignment, one of the largest agencies on the grounds. At Hamner's request, the barn foreman directed Seaman to a particular stall, where a groom was snapping a bit onto a yearling's halter, preparing to take the woolly chestnut colt out in the yard.

"No, that's all right," Seaman said. He always measures horses in the quiet of their stalls, a peculiarity that confuses grooms, who are used to standing their wares up in the walking ring for scrutinizing bidders. At Seaman's direction, the young woman stood the colt against the wall, so Seaman could measure along his left side.

"Pull the head over this way, please, so the head, neck, and back are in a straight line," he said to the groom.

He rubbed the colt's nose. "I like to let them smell my hand, so they know I'm not a veterinarian," he explained. "After I do that, they relax."

Seaman then pulled out one of his tapes and quickly angled its yellow line around the horse's left side, working from shoulder to rump, then along the back, calling out the number of inches as he went. Hamner dutifully wrote the numbers down on her clipboard.

To measure the legs, Seaman gently pushed bedding straw away from the colt's hooves with his foot, stepped on the end of the tape, and reeled it upward to the top of the leg. "Twenty-four and one-half, hock. Thirty-two and one-half, front legs. Fifty-nine, height."

The yearling looked startled and rolled his eye back toward Seaman as the tape wound and unwound with a faint rustle. Seaman had the groom press one end of the tape against the point of the colt's shoulder while he reeled it out to the farthest point of the rump.

"Seventy-six and one-half, length," Seaman said.

He dropped the tape over the colt's withers, caught it under the belly, and read out the distance around the colt's barrel: "Sixty and one-half, heart-girth." That measurement, combined with the one for the length of the colt's barrel, would determine his mass, Seaman explained. The length of the colt's femur and tibia would help determine his leverage. The comparison between mass and leverage would

be crucial to show how efficiently he would move.

The groom, watching all this, asked shyly, "What is this for?"

"This? Oh, it's biomechanics, just to see what they're going to do," Seaman said absently. He pushed his fist up under the colt's throat, measuring the space between the two sides of the jaw. "Four, jaw," he told Hamner.

"Some work was done a few years ago that claimed that if a horse is too narrow in the throat it puts too much pressure on the nerves in the windpipe area, and sometimes that nerve can become paralyzed and they'll have wind problems," he explained. "I believe there's probably some truth to that. We haven't checked the bearing that has, and we're getting ready to look at 15,000 horses in our database to see if it does have bearing. We revise our stuff many times. We're always looking."

Seaman does like to see horses walk, but unlike his colleagues who silently write notes to themselves on their catalog pages, Seaman calls out his thoughts in coded language to Hamner. He directed the groom to walk Hip 439 straight down the shedrow, not in the more usual walking ring. When the colt came back, Seaman walked around him, hands in pockets, firing out obscure comments.

"KK one-half, KO one-half," he said. "Check, check on feet. A on bone."

Then, to the groom, "That's fine, thank you."

The whole examination took less than five minutes. At the end of it, Hamner had a sheet with numbers and letters filled in for 15 measurement categories, including lengths of scapula, humerus, femur, and tibia; the length from shoulder to ischium, the point of the hip; and the distance from hock to ground, stifle to ground, and flank to ground.

"KK," Seaman explained as he left the barn, means that the colt was knock-kneed. "KO" refers to an offset knee. Bone is classified as light, average, or heavy. There is a ream of other designations, all of which are basically familiar to all horsemen who judge conformation. Seaman considers conformation, but he believes it is only helpful when considered in relation to biomechanics.

"Conformation and biomechanics aren't related at all," he said. "That's why you can have some horses with terrible conformation

that still run. But what helps a horse with bad conformation that has some faults—the kind of horse a lot of people will turn down—is if he has a good point of gravity. If their point of gravity doesn't accent their conformation faults, then they can go on and stay sound and make a lot of starts. If they have a bad point of gravity, even if they're correct, they'll make less starts because the weight is too far on the front end."

For Seaman, pedigree is icing on the biomechanics cake. A good pedigree might add talent to a horse, but he will still have to be built properly in order to win. Once he does win, a good pedigree

will increase his value.

"We don't take pedigree into account for what they'll do physically," Seaman said. "A lot of horses are trained wrong, because they've got a pedigree that says 'grass' or 'long,' and so they get trained that way when, in fact, they're made to do something else.

"We look at horses completely differently from most people," he acknowledged. "Most people are looking for a reason to turn the horse down. We're trying to find reasons to buy the horse. We want to buy a horse that has good biomechanics, a good point of gravity, correct enough that we think it will make it to the races, and as much pedigree as we can afford, because pedigree is your residual value. If you have a horse with a great pedigree that wins graded stakes, it's worth more than one without a great pedigree that wins graded stakes."

Seaman said that his program, feeding off the measurements of more than 60,000 horses and that raft of champions, can even tell him specifics: what distance a horse is biomechanically suited for, how competitive that horse's body proportions will allow him to be in graded-stakes company, even whether the horse would do better

running marathons on turf or sprints on dirt.

"The computer generates all of this information, based on the raw measurements we put in," he said. "And we can buy horses right off of the information on these sheets. They tell you where it falls in the population conformationally, their soundness rating, what level of racing the horse can run to, how much the horse is overweight or underweight, what distance and surface the horse will do best on."

His rival bloodstock agents scoff at such assertions and accuse Seaman of being too dogmatic in a business they believe requires a certain subtlety of mind and eye, a notion that plainly grates on Seaman's orderly, statistically inclined mind.

"What people don't understand, they don't believe," he said, shrugging. "That's just human nature. I just tell people, 'Just look at our stats.' There are a lot of successful people from other businesses who come into the horse business and don't use the tools they could use to make them more successful here. But I'm just one consulting firm, and we're in competition with all these other agents, advisers, and farm managers. Most people have never even seen our stats. I don't know that we're demystifying horses, but we can identify the biomechanics, and we get good results.

"We've got it down to a science now," he added. "Everybody likes something that's appealing, but everybody has a bias. They like things they've been successful with. But those aren't the only things that are successful. There are lots of things that are successful. If we can buy horses that have faults, and buy them for the price of a ham sandwich, and go out there and win a lot of races with them, that makes the business work. And you have to do something that will make the business work, financially."

Seaman's average yearling-purchase price, over the last decade, was about \$41,000, and most of his clients won't bid much beyond \$150,000 to get a horse. They can't afford to buy a colt by Storm Cat, because no one who has paid Storm Cat's \$500,000 stud fee is going to sell the colt that cheaply. So Seaman takes his slide rule to lesser pedigrees, hunting out biomechanical stars by overlooked, unproven, or unlikely sires.

Seaman's clients believe biomechanics will help them get their money's worth, and at least one statistical chart Seaman uses in his advertising suggests it might. The trade publication *Thoroughbred Times* produced the chart, which showed the return-on-investment percentages for 25 major Thoroughbred yearling buyers with 100 or more total purchases since 1990. Only six showed positive ROI's when the *Times* compared total purchase prices to total purse earnings, and Seaman's was the highest at 69 percent. Seaman spent \$8,837,000 for 215 yearlings who went on to win \$14,954,959.

But the chart factored in only race earnings, and not the fantastic sums that some horses can go on and generate as stallions. The clear winner in that race was Coolmore Stud's agent Demi

O'Byrne. O'Byrne spent \$86,475,000 to buy 106 yearlings that would earn only \$12,287,485, resulting in a terrifyingly bad ROI of -86 percent. But a staggering 24.5 percent of those runners turned 148 out to be stakes winners; most were colts; and many are now individually generating millions of dollars every breeding season for Coolmore—an immense profit not recorded on the *Times* chart.

Even those stakes winners who were not good enough to make Coolmore's stallion roster could be sold privately for millions to

other stud farms.

O'Byrne clearly had a talent for finding horses whose names eventually would be written in bold-face print, or "black type," The Jockey Club's coveted designation for a successful stakes performer. But he paid heavily for it. His next-nearest competitor, Canadian-based entrepreneur Frank Stronach, got 18.6 percent stakes winners from \$24.4 million in yearling purchases. Sheikh Mohammed al-Maktoum got 15.1 percent stakes winners after spending \$65.8 million. Black type on the racetrack equals black ink on a farm's bank statement, and the earning potential in the breeding shed far outstrips what runners can earn by racing. Coolmore obviously knew this, which was why Demi O'Byrne's -86 percent ROI had not cost the Irishman his job.

Even Seaman, who prides himself on finding biomechanically superior bargains for his clients, dreams of getting a whale like Coolmore. A buyer with that kind of financial backing could tap into rich pedigrees swollen with blank ink and end up with a flood

of gold.

"I'd like to find some of those big clients, too, because our stats probably would be even better if we could buy into that next level, buy horses by stallions that are producing nine or ten percent stakes winners," Seaman said. "If we could do that, our average stakes winners would probably go up by ten or fifteen percent. Pedigree is an indication of successful horses in a horse's family. And the more successful horses there are, the more you'll have to pay for them. But it doesn't mean they're going to run, because even the top sires only get about ten percent really successful runners."

Seaman paused. "That's funny, isn't it? In what other business would ten percent be considered success?"

It was not a cheering statistic. The other 90 percent could fall victim to any number of problems, from poor proportionality, as determined by Seaman's measuring tape, to deadly illness. One of them might even be biomechanically perfect, and you would buy him, and then he could be startled during a thunderstorm and run through his paddock fence.

"That's true." Seaman nodded. "You can't control everything. There are so many different environmental factors: different trainers, different riders, different environments since the horses were born. There are just too many different variables, and nobody can control them all. But looking at the biomechanics, we are able to pick the right kind of horses to at least load our dice.

"We're looking at so many different factors," he concluded. "This is the combination of a lot of different parts that make up a whole. And the whole is stronger than anybody's eyeball. It's facts, it's figures, it's percentages, it's statistics."

But so far, despite the best systems of breeders, scientists, and buyers, there is still no single, objective, and fail-safe standard for creating or identifying a champion. After centuries of technological innovation and improved analysis, judging a horse is both easier and more complicated than it used to be. But the pressure remains largely where it has always been: on the person who puts up the money and on his hired eye.

Even John Ferguson, whose bids are backed by Sheikh Mohammed's seemingly bottomless account, is not immune to that pressure. His employer is an enthusiastic buyer who can spend millions on a single horse with obvious ease. That significantly increases the likelihood that Ferguson will get whatever horse he bids on, but it does not guarantee that the horse he gets will run.

In the 23 years since their arrival at American sales in 1980, Sheikh Mohammed and his brothers had spent more than \$671 million on yearlings alone, but they had yet to win the Kentucky Derby, a prize Sheikh Mohammed in particular famously desires. He had bought legions of runners, most notably the champion and ill-fated stallion Dubai Millennium, who looked set for reproductive stardom but then died of a rare disease during his first year at stud in England.

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Sheikh Mohammed and Ferguson both have been around horses long enough to know that such turns of luck, while sometimes devastating, are par for the course, and that no animal—not even the best-bred, best-conformed colt—is ever a sure thing. Ferguson, for one, never feels entirely comfortable, a common state of mind among people who spend their lives in close proximity to racehorses.

"Whenever you're bidding on a horse, you're constantly thinking, 'Am I making a mistake? Am I doing the right thing?" said Ferguson, an earnest, auburn-haired Englishman with a pleasant but slightly harried manner. "You have to remember, yes, sure, I've been very lucky and we've bought a lot of nice horses over the years, but we've bought a lot of slow ones as well. I always feel, particularly when you're buying horses to race, you should have that concern, that slight fear factor. It keeps you on your toes. If you go in there totally blasé and totally believing, you'll end up having a smash, because it doesn't work like that. You have to be aware of the risks.

"Whether you're bidding for Sheikh Mohammed or Joe down the road, a horse has a value. You know going in what your last bid is. You've got to, because nothing in this world, with the exception of life, is priceless. Horses certainly are never priceless; they have a value of some kind that you have to work out sensibly, and doubly sensibly if it's not your money.

"You learn to value the entire package: pedigree, athleticism, conformation," Ferguson concluded. "And once you value that package, you walk in there thinking, 'Am I right? Am I right? Am I right?"

There is only one objective answer to that question, and that is the finish line.