the judge's box

Advanced Dressage Geometry

The art of riding in a dressage arena

By Marilyn Heath

n my last "Judge's Box" article, "The Secrets to Showing Success" (October 2012), I discussed the importance of riding accurate figures—Dressage Geometry 101, if you will. In this month's article, I will move on to more advanced geometry. But first, let's review why accurate geometry is so important in dressage training and riding.



IT'S FUNDAMENTAL: Accurate geometry and figures not only improve your test scores; they also are the underpinning of correct dressage training. Silva Martin and Aesthete show the bend and balance needed for a moreadvanced circle, corner, or turn.

A Cornerstone of Correct Training

The Introductory Level tests strive to help horse and rider understand how to ride in a dressage arena. The stated purpose of the Introductory tests includes: "to show proper geometry of figures in the arena with correct bend (corners and circles)." There is a score in the collective marks at Introductory Level for "geometry and accuracy (correct size and shape of circles and turns)."

The new United States Equestrian Federation Rider tests emphasize geometry and accuracy. One of the five marks on the test sheet addresses this subject. From the Training and First Level Rider test sheets: "The geometry of the movements is correct in terms of their size, shape and placement in the arena. The circles and half-circles are round, have the correct diameter and they originate and terminate at the correct place. The corners are performed as one-quarter of a 10-meter circle."

Why is accuracy so important that it is emphasized in these fundamental dressage tests? Because the horse can be more correctly trained by riding correct figures and corners.

Figures are the geometrical components of a dressage test (e.g., a circle, change of rein, or a figure of eight). If, both when riding a test and schooling at home, you use the arena properly and ride figures correctly, your horse's training will profit from the consistency of bend, the correct use of corners, and the preparation for the figures and movements.

Inaccurate transitions and figures may reduce the level of difficulty. For instance, a ten-meter circle ridden as a twelve-meter circle is easier and does not fulfill the criteria of the movement. Round circles of the size required and correct diagonal lines should become a habit. It is true that, especially at the lower levels, accuracy may be a modifier in considering the score for a movement. But at every level, accuracy adds so much polish to a test—and is so easy if it is habitual—that it is foolish for a competitor to lose valuable points through inattention to accuracy.

Arena Dimensions and Geometry

There are two sizes of dressage arenas (see the diagrams on the opposite page). A standard arena is 20 meters by 60 meters—three times as long as it is wide. The small arena is 20 meters by 40 meters, or just twice as long as it is wide. Most tests are ridden in the standard arena, but Training Level tests may be ridden in a small arena, and some para-equestrian tests are performed in a small arena.

Within the rectangle of the dressage arena we are largely concerned with circles, parts of circles, and combinations of those parts of circles. Ridden together or separately, these elements produce half-circles, figures of eight, serpentines, loops, and—not to be ignored—corners.

At all levels in dressage, competitors must negotiate the four corners of the arena. According to the USEF Rule Book, "Corners should be ridden as one-quarter of a volte appropriate to the level of the test (10 meters at Training-First Levels, 8 meters at Second-Fourth Levels and 6 meters above Fourth Level)."

The importance of correct corners cannot be stressed enough, as it is this awareness that helps to prepare the horse for the movement to come.

Geometry in Action: Riding a Test

Let's go through some of the geometric elements in a dressage test.

Center line and turn at C. A dressage test always begins with the center line at either trot or canter. How you ride the center line creates the judge's first impression. From the judge's vantage point at C, it is important that the horse be straight on the center line—so your first consideration as a competitor is how to get into the arena, past the marker for the letter A, while maintaining a straight line.

According to the USEF rules, the "A" letter marker should be five meters away from the arena boundary to afford horses room to enter as straight as possible. Before the show, practice entering at A from either side of the marker to determine which direction affords your horse the maximum straightness. As a rule, it is best to keep A on your right side when entering on the left rein, and on your left side when entering on the right rein, rather than riding around the marker. But if your horse tends to swing his haunches in one direction, you can see if entering from the other side of the marker helps with this problem.

A common fault in accuracy occurs after the horse moves off after the initial halt and salute: The rider allows the horse to drift to the outside when making the turn at C. The horse does not need to make wide turns. Do your best to keep him straight on the center line between X and C to prepare him for the turn.

Circles. In the standard arena, there is room for three 20-meter circles with no overlap. A circle is, by

ENTER ENTER <u>5 m</u> 5 m Å 5 m A 5 m 5 m 5 m 🚦 5 m 6 m D D 12 m 14 m 12 m 14 m -60 m INE 12 m 6 m R JURY 20 m ---12 m M 6 m С JURY

STANDARD AND SMALL ARENAS: 20m x 60m, and 20m x 40m. Note the placement and spacing of quarter lines, center line, and letter markers.

definition, round. Therefore, the horse should always be equidistant from the center of the circle.

A teaching method for riding a round circle is to put a lunge line on the inside stirrup iron (on a very quiet horse) and have the handler stand in the middle of the circle and not move. As the horse moves around the handler, it becomes apparent when the circle is losing its roundness. If the rider cuts to the inside or the horse falls in on the circle, then the lunge line will become slack. If the rider bulges the circle or the horse falls out on the circle, then the stirrup will be pulled away from the horse.

Think of a circle as having four guide points. Let's say you're tracking left and you want to ride a 20-meter circle at A. Leave the track at A, aiming for the first guide point, which is on the track ten meters from the corner (four meters past F). As you approach that first point, look to the

> next guide point, which is crossing the center line two meters past L. Then look to a point on the track four meters before K. Approaching that point, focus on A. Keep each of those segments of the circle a round guarter of the entire circle. See the diagram on page 42 for a depiction of the circle geometry. Now let's ride a 20-me-

ride a 20-meter circle right at E. Leave the track immediately at



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C

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E, aiming

for the first

guide point,

which is on

line two me-

the center

ters before

I. As you

approach

that point,

focus on B.

Touch the

track at B

and proceed

point on the

to the next

center line,

ters before

I. Return to

E, keeping

the round-

ness of each

two me-



CIRCLE GEOMETRY: 20-meter circle at B or E, ten-meter circle at B quarter-segment in mind.

Riding a 20-meter circle in this manner ensures accurate geometry. When riders do not understand the geometry of the arena and the spacing of the letters, the result is often a 20 x 24 oval instead. See the diagram for an illustration of the 20-meter circle at E as well as a correct ten-meter circle.

A fifteen-meter circle that begins on the long side of the arena reaches to the opposite quarter line. One that begins at A or C misses the track on each side by two and a half meters, and misses L or I by three meters. **Serpentines.** Now let's apply what we have learned about riding circles to the serpentine of three equal loops from A to C.

The three-loop serpentine consists of three 20-meter half-circles. Think of taking the same three circles you've just ridden, putting them together, and erasing half of each circle (see diagram at left). By doing so, you will eliminate these common faults:

- Riding into the corners after A and before C instead of rounding them as parts of the circles
- Making the first and third loops eighteen meters and the middle loop 24 meters
- Not being parallel to the short side when crossing the center line.

Other figures are also combinations of circles and parts of circles. For instance, a figure of eight is made up of two circles or voltes. There should be a moment of straightness where the circles touch; the same applies when two half-circles are put together (see diagram below). With the circle being basic to so many figures, you can see why it is so important to learn to ride a circle correctly.

Loops. A loop, which is an Sshaped figure, is a variation of a serpentine. A correctly ridden loop begins with a correct corner, followed by a single loop and another correct corner. In the trot, the horse should bend properly in both corners and change the bend for the loop. As it's executed



FIGURE EIGHT: Note the moment of straightness at the midpoint, where the circles touch. The same principle holds true in riding a serpentine or one or more connecting half-circles.

corner letter. The diagram at right depicts the correct and incorrect way to ride a single loop.

Halfcircles and turns. Halfcircles of ten meters in diameter are used in First Level tests and also at Training and First Levels for turning down the center line at the conclusion of the test. But at Second Level and above. instead of

making a half-circle to go down the final center line, the tests require the horse to *turn* onto the center line—a

more challenging directive because the turn is less gradual. Here's how to ride a turn. I'll use the concluding movements of Sec- Eond Level Test 1 (turn left at E; turn left at X: halt and salute at G) to illustrate. A cor-

ner at Second Level is ridden on an eight-meter radius. Giv-

corner letter

to the next

to X and back



SINGLE LOOP: As the name suggests, the loop is a gently curving figure. It is not two straight lines connected. The red line shows the incorrect geometry.

С н -M G ς -R -B V-L K٠ D A TURNS: Second Level Test 1 concludes with turns at E and X before the final halt and salute at G

en that the arena is 20 meters wide, the turn onto the center line from E should be initiated four meters before E, with a moment of straightness (of two meters—about a horse's length) followed by the turn at X. It is important that there be two turns instead of a half-circle, and that the line between E and B be observed.

Prepare for Accuracy

Smooth execution of all transitions, movements, and figures requires the use of half-halts. How early one begins this preparation varies from horse to horse. Practice transitions to halts and transitions from one gait to another. Ride those transitions at different letters and on the center line. Practice riding a straight line on the diagonals. Work on the spacing of tempi changes so that they are centered on the diagonal; it is more polished if the middle change is at X. The length of your horse's stride and of his flying-change stride will dictate how soon on the diagonal you should begin the tempi changes. A small horse with a shorter stride, naturally, will differ from a larger horse in this regard.

After you master the fine points of dressage-arena geometry and make accuracy a habit, you can concentrate on the important issues of rhythm, relaxation and suppleness, connection, impulsion, straightness, and collection. In other words, you can focus on *how* your horse is going and not so much on *where* he is going. Don't lose valuable points on this detail that, although it cannot be overlooked, is far less important than establishing the correct basics. When accuracy becomes second nature, the technical aspects become rote, thereby freeing you to get to the true crux of the art of dressage. 🔺

Marilyn Heath, of Naples, FL, is a USEF "S" dressage judge, a USDF "L" Education Program faculty member, and a member of the USDF Judges Committee. She is a USDF bronze, silver, and gold medalist.





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