BY David Alciatore Ph.D.

PLAN FOR SUCCESS

The "peace sign" can be a tool to improve position play.

[Note: Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, and technical proofs (TP) can be accessed and viewed online at **billiards.colostate.edu.** *The reference numbers used in the article help you locate the resources on the Web site. You might want to view the resources on a CD-ROM or DVD. Details can be found at dr-dave-billiards.com.]*

THIS IS the sixth article in a series on fundamentals. In the last five months, I've covered the stroke, the basics of aiming, issues involved with cut-shot aiming systems, the effects of bridge length, and the basics of cue-ball (CB) control. This month we will look at some examples of how to apply the CB control principles covered last month. Recall, the 90° rule predicts that the CB will head straight in the tangent-line direction for a stun shot, where the CB has no top spin or bottom spin at object-ball (OB) contact. The 30° rule predicts the CB will deflect by close to 30° (with respect to its original direction) for a wide range of shots if the CB is rolling. And the trisect system predicts, for a draw shot with "good action," the final direction of the CB will be three-times the cut angle away from the original direction (see last month's article and **NV B.43** for more information).

Diagram 1 shows an example of how to detect and avoid a possible scratch. Our goal is to pocket the 1 ball in the corner pocket and leave the CB with an easy shot on the 8 to win the game. From the 30° rule, a slow rolling CB will likely result in a scratch (see the red shot in the diagram). You can use the Dr. Dave peace-sign technique (see **NV 3.8** and NV B.43) to easily visualize the 30° direction. (Note that for a shot close to a half-ball hit, you want to stretch your peace sign to visualize an angle slightly larger than 30°; and for shots closer to a ¼-ball or ¾-ball hit, you want to relax your peace sign to visualize an angle slightly smaller than 30°.) The blue shot in Diagram 1 shows what happens if you use a little more speed. The more speed you use on a roll shot, the more the CB persists along the tangent-line direction before it curves to the final 30° direction (as shown in **NV B.45**). This slight shift is enough to avoid the pocket and get position on the 8 ball shot. However, if you use enough speed to safely clear the pocket, you might overrun the desired CB location. And because the CB "crosses the line" of the 8 ball shot, overrunning will result in a much tougher shot. A better option is shown in purple. Here, less speed is used, but the CB is hit lower, so full roll does not develop before contact with the 1 ball. As a result, the CB heads in between the tangent-line and 30° directions. Also, the deflection off the side rail helps slow the CB and send it toward a desirable "shot line" for the 8 ball. Also, if the speed is too slow or a little fast, you will still have a good shot at the 8 ball to win the game. All of these alternatives are demonstrated in **NV B.46**. To get a better feel for how speed, distance and tip offset affect how much roll the CB has at OB contact, check out the stop/follow/draw drill in the "Instructor and Student Resources" section of my Web site.

Diagram 2 shows an example where knowledge of and creativity with CB control principles can help you make intelligent decisions and win more games. In this example during a game of 9-ball, there are several options. One option is to try to cut the 6 ball into the far corner pocket, but this is a difficult shot and you still need to get a shot on the 7 ball, which is in a tough spot. You could play safe by hitting the 6 ball squarely, banking it to the opposite side rail and stopping

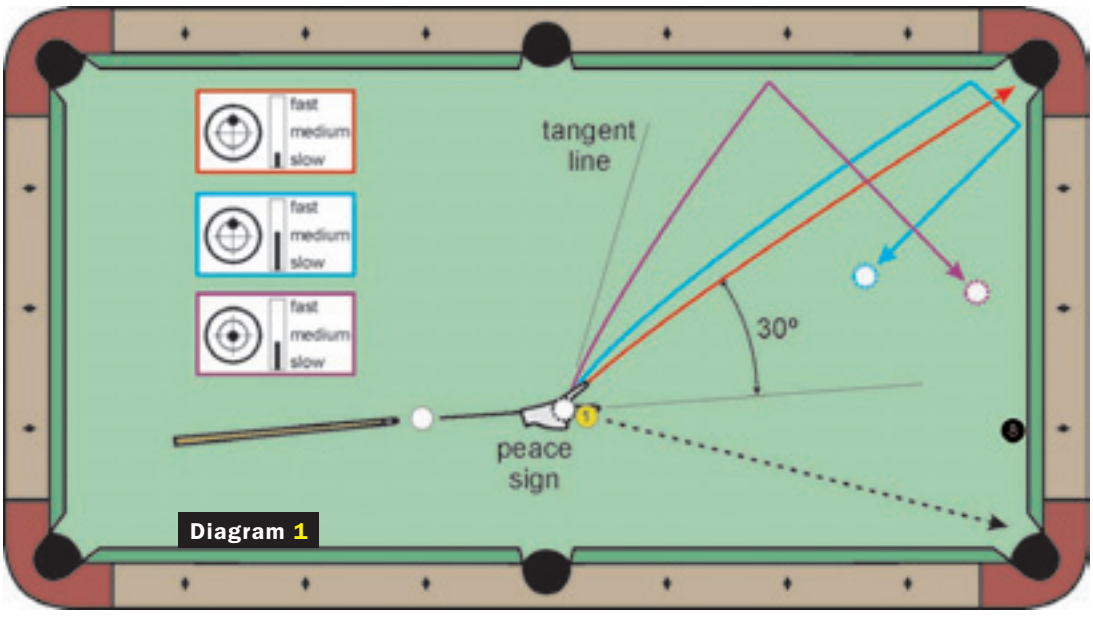

Diagram 1

the CB in place (or drawing it back slightly) to hide the CB behind the 8 ball, forcing your opponent to kick at the 6 ball. But your opponent might easily make contact with the 6 ball with a kick shot; and even if he or she didn't, you still don't have an easy out with ball in hand. A great option in this situation is a billiard shot, where you carom (kiss) the CB off the 6 ball to pocket the 9 ball in the corner to win the game. The best scenario for a billiard shot is when the ball you want to hit (the 9 ball in this example) is along the 30° direction. In that case, a slow roll shot can be used, and you still have a huge margin for error (see my June '04 article for more info). Unfortunately, the 9 ball is not in the 30° path in this example. However, if you are good at hitting a stun shot, a 90° carom is a great option in situations like this. As demonstrated in NV B.46, the first step is to find the necessary aiming line to send the 6 ball perpendicular to (90° away from) the desired final CB direction. Then, you just need to execute a stun shot (a "stop shot at an angle") to send the 6 ball in the planned direction. If you are concerned about scratching, you can use less speed (and hit the CB a little lower to ensure stun) and/or aim for a less direct hit on the 9 ball.

Obviously, to be effective with 90° carom shots, you need to have a good feel for creating stun for different speeds and distances to the OB. As I pointed out before, the stop/follow/draw drill in the "Instructor and Student Resources" section of my Web site can help you with this. Other billiards and carom shot examples are described and demonstrated in **NV 7.2-7.4**.

Diagram 3 shows an example where CB control principles can be helpful with breaking out clusters. In the diagram, the goal is to pocket the 1 ball while breaking up the cluster with the 4 ball and 7 ball. This will remove a roadblock, increasing the chances you can run the table. With a stun shot, the CB would head along the tangent line and miss the cluster. A slow rolling shot would also leave the cluster untouched, as the CB would miss the balls as it headed in the 30° direction. So to hit the cluster, the CB must have partial roll. An ideal path is shown in the diagram where the CB hits the 4 ball fairly squarely. As a result, the 7 ball is sent toward the corner pocket, the 4 ball drifts out from the rail for several options, and the CB doesn't move very much. With the resulting layout, a good player should have no trouble running the table for the win. With this shot, close to a center-ball hit will get the job done. With medium speed, the CB will develop some (but not complete) roll on the way to the 1 ball, and the CB will take a path similar to that shown in the diagram. Like many things in pool, you need to develop a feel for how much speed and tip offset to use in different situations. That can come only with lots of practice. But understanding all of the principles involved should help you learn faster and be a better shot planner.

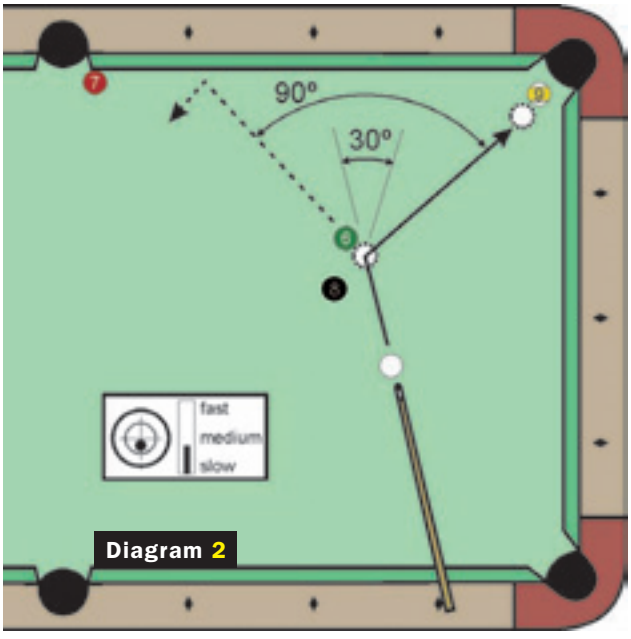

Diagram 2

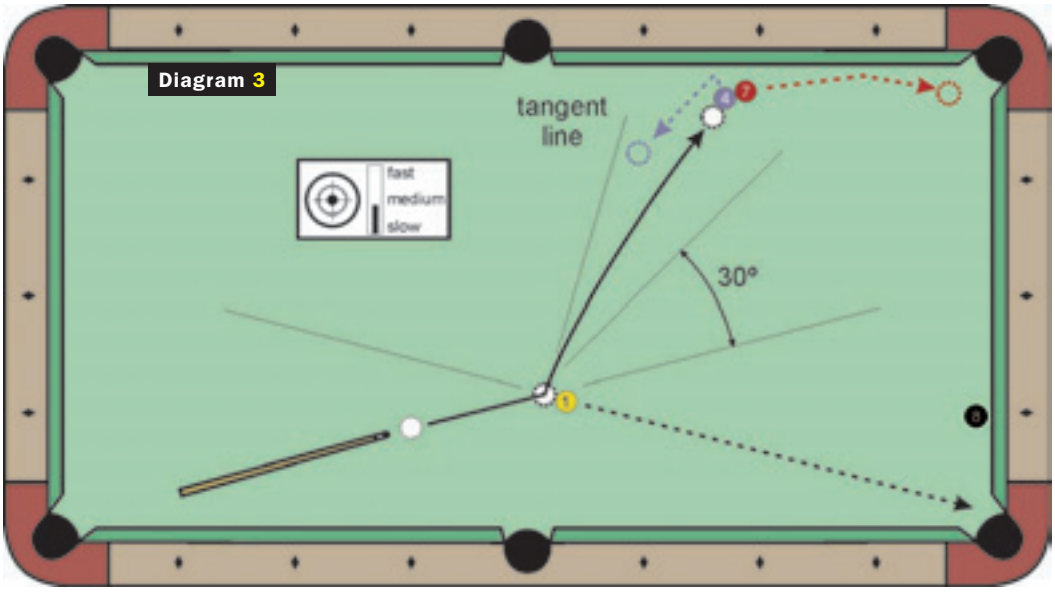

Diagram 3

Well, I hope you are enjoying and benefiting from my series of articles on fundamentals. Over the next two months, we will continue looking at important issues related to CB control. Specifically, we will look at thin and full hits, and speed control.

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