

# TWO & THREE BALL CLUSTERS

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## INTRODUCTION

One of the challenges that comes up a lot in all pool games is two and three ball clusters. Now the standard wisdom is to separate the clusters gently so that you don't create more problems and that you leave yourself other shots, or play them where they lie if pockets are available and the cluster doesn't need to be disturbed.

But what sometimes happens is that we are left with an orphan two ball cluster and without any way to hit it. What I'm showing you in this booklet are some great escapes that might not be common knowledge regarding what you can do with a two or three ball cluster to keep your run alive. Much of what is in this booklet is not common knowledge and may surprise you. Most of this information comes from the old-time straight pool champions. They really knew how pool balls reacted!

Like any pool knowledge, just knowing the shot is not enough. You must spend time at the table working with these shots to develop the feel and touch needed to pull one of these off in a match. Good luck and see you on the road.

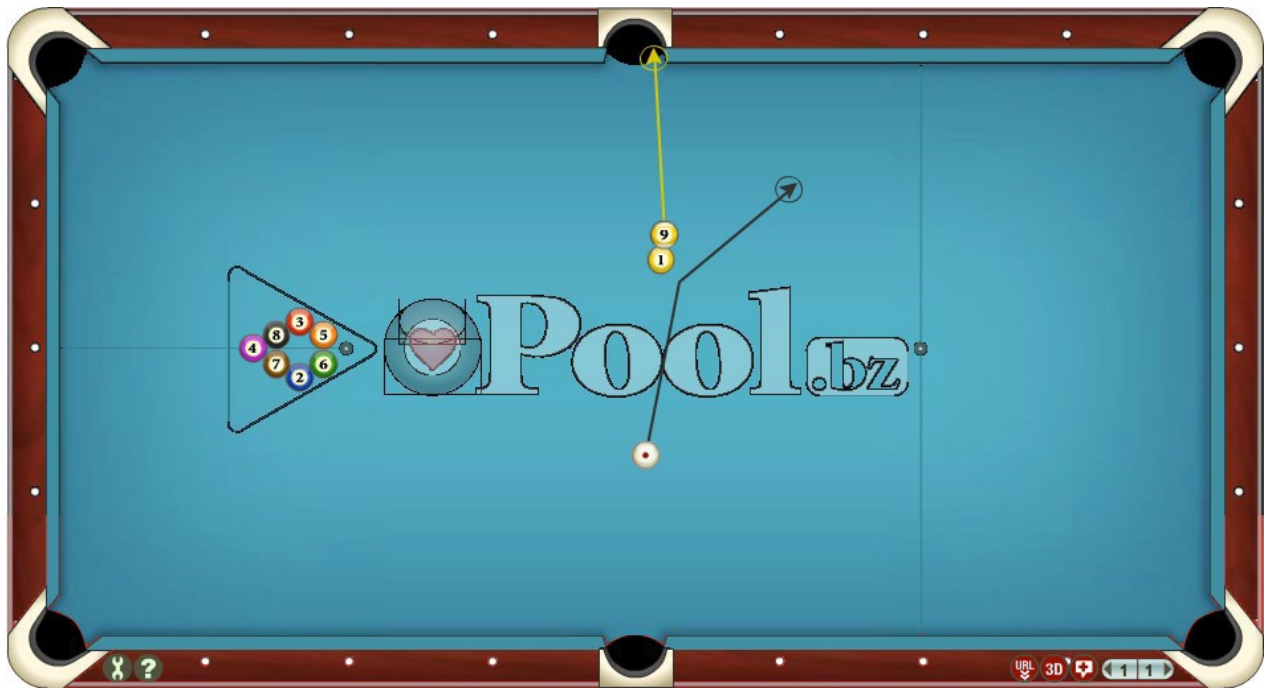
Special thanks to Tom Simpson and Mark Powell for putting up with my "look at this shot" theatrics, and for providing shots and priceless feedback. I'd also like to thank Robert Byrne, Bob Jewett, Bud Harris, Bert Kinister, Abe Rosen. George Mikula, Dick Megiveron, Jay Swanson, Johnny Ervolino, Scott Lee, and Jimmy Fusco for sharing their ideas with me. If I forgot someone, I apologize. Getting old isn't what it's cracked up to be.

### **Mark Finkelstein**

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## SHOT 1: Standard throw shot



Finished Drawing Line 9: 2 Points, Total Dist: 15 inches



In this standard shot, we can throw the front ball slightly to the left or right. Maximum throw for normal conditions is about 1 inch per foot of travel. We also get the most throw with a half ball hit on the object ball to be thrown.

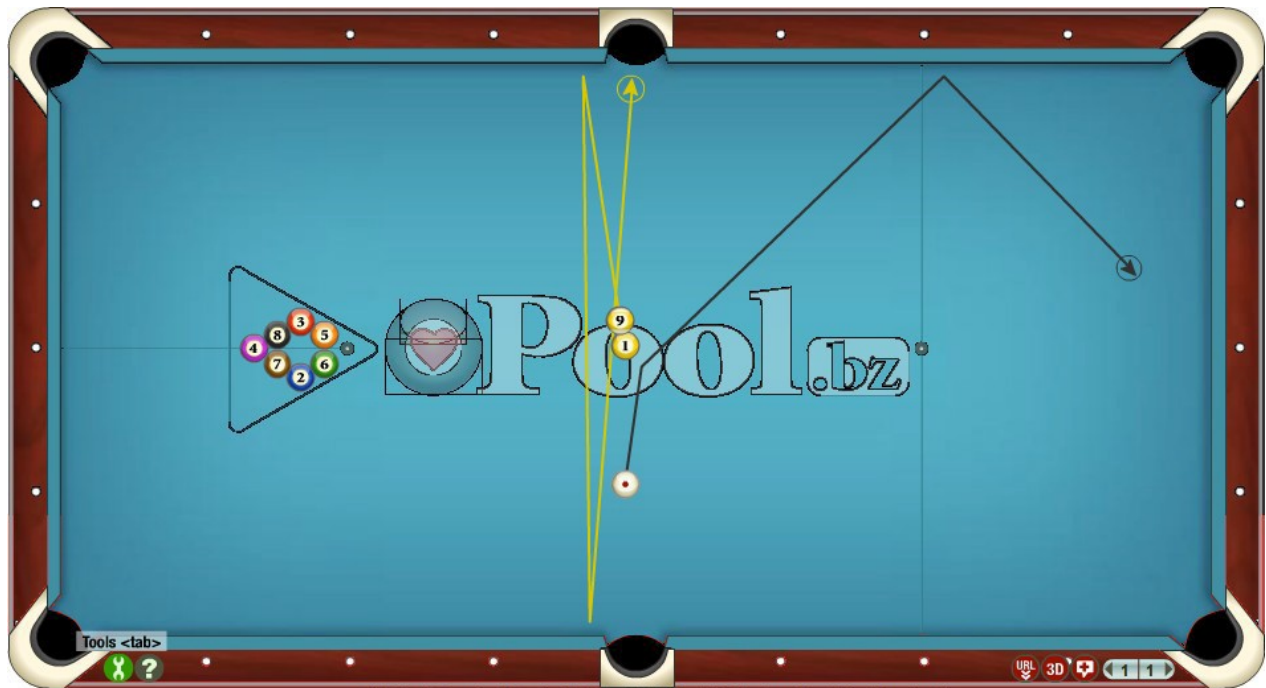
Softer hits as well as dirty balls or slippery cloth get a little more throw.

## SHOT 2: Standard kiss shot



In this shot, the stun line runs from the 8 ball to inside the corner pocket. We can hit the one ball anywhere on the right side and the one ball will roll down the stun line and into the pocket. The effect is caused by the 1 ball being frozen to the 8. This limits the path the one ball can take.

### SHOT 3: Frozen double back bank



Finished Drawing Line 9: 4 Points, Total Dist: 117 inches, Last Pivot Angle: 5°



This shot seems to defy physics. The cluster is lined up just below the side pocket. Hitting the first ball firmly on the right throws the object ball to the left, but imparts a bit of right spin on the front object ball. This spin is reverse on the first rail and alters the rebound angle, causing the object ball to come back up the rail. This new track line sends the object toward the cross side pocket.

## SHOT 4: Moving the furniture



In this shot it looks like there really isn't much that you can do. However, if you hit the 1 ball first thinly, it relocates the 9 enough for a double kiss and a chance at pocketing the 9. Shoot this shot with a soft to medium speed and stay on the vertical axis of the cue ball. This shot is sensitive to the rails and the cue ball size so make sure you practice this on the equipment you play on.

Look for this idea in other shots, as it comes up all over the table.

## SHOT 5: Rail compression



Here is one that really hurts the brain when you first see it. In this diagram it looks like you don't have much of a shot. You might try shot #4, and that is a possibility, but in this case, I think there is a better option.

If you hit the 1 ball full in the face hard, the rail compresses and the 1 cuts the 9 ball back toward the pocket. When you first start shooting this shot you will tend to hit it too hard and double bank the 9. You can really compress the rail a lot more than you think.

## SHOT 6: A Jimmy Fusco special



Finished Drawing Line 1: 2 Points, Total Dist: 13 Inches

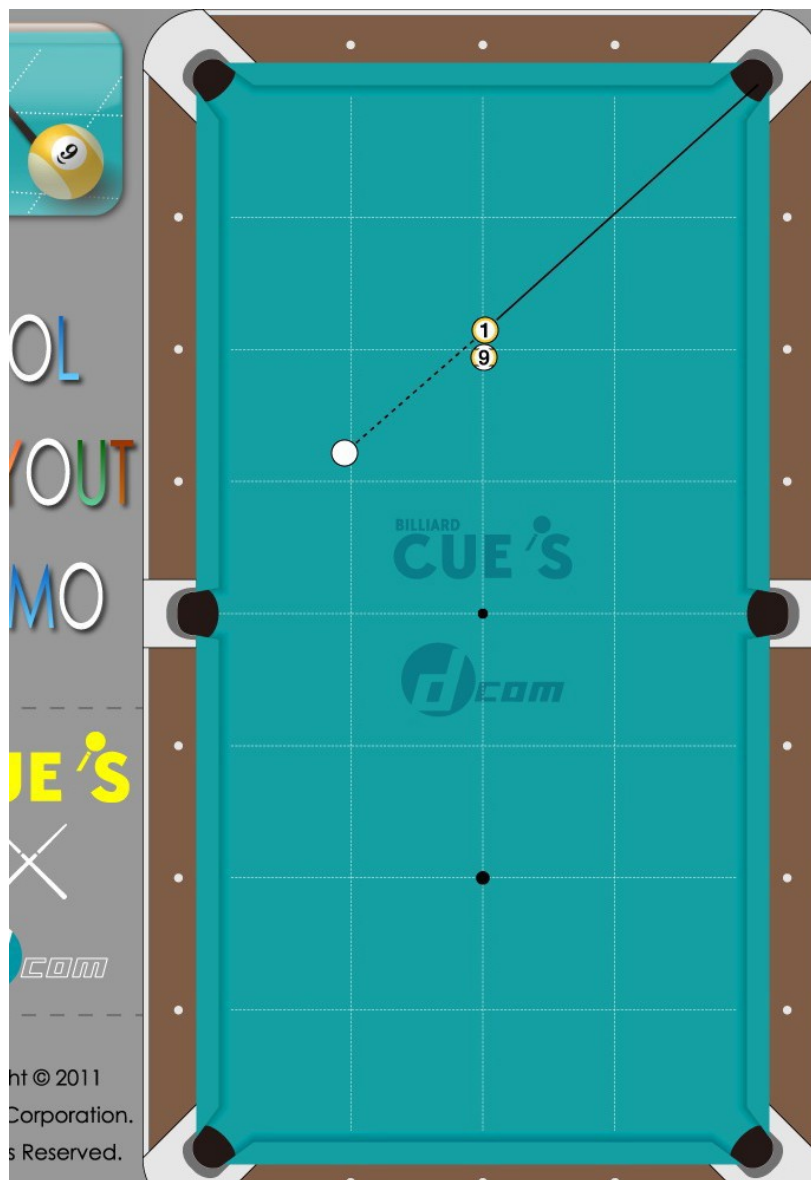


Here is a shot that combines the stun line principle in shot 2 with a kiss off the rail from the cue ball to make a seemingly magic shot. Use a lot of inside spin and don't hit this too hard. This gives the spin a chance to take off the rail and herd the 1 ball toward the pocket.

Once you get the hang of this shot, you can make it most of the time. Again, make sure the balls are frozen and they are sitting as in the diagram.



## SHOT 7: Jumping it in

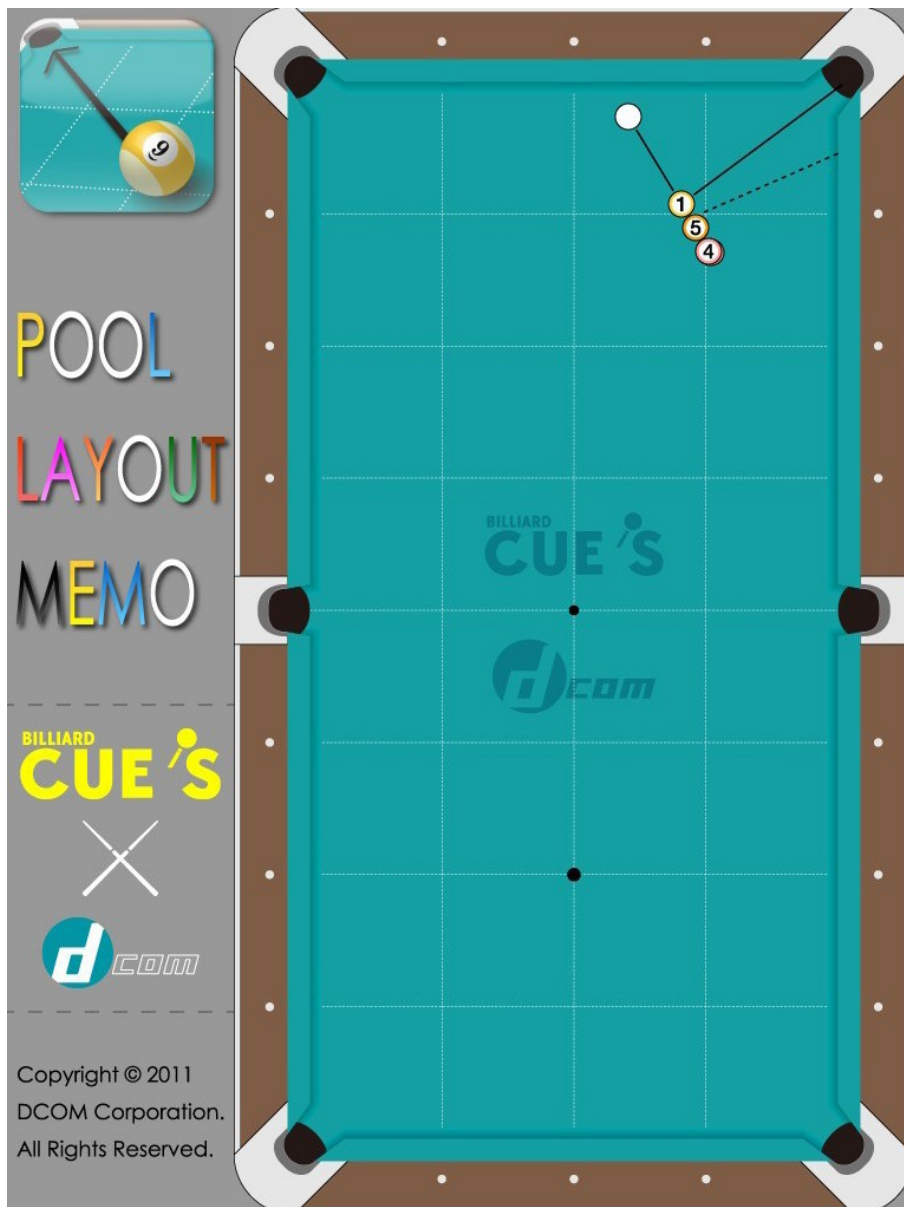


Here is a very common situation in 9 ball where you get ball in hand, but the ball you are trying to hit is frozen behind another ball. One useful technique is to jump over the interfering ball to land on the 1 ball and pocket it.

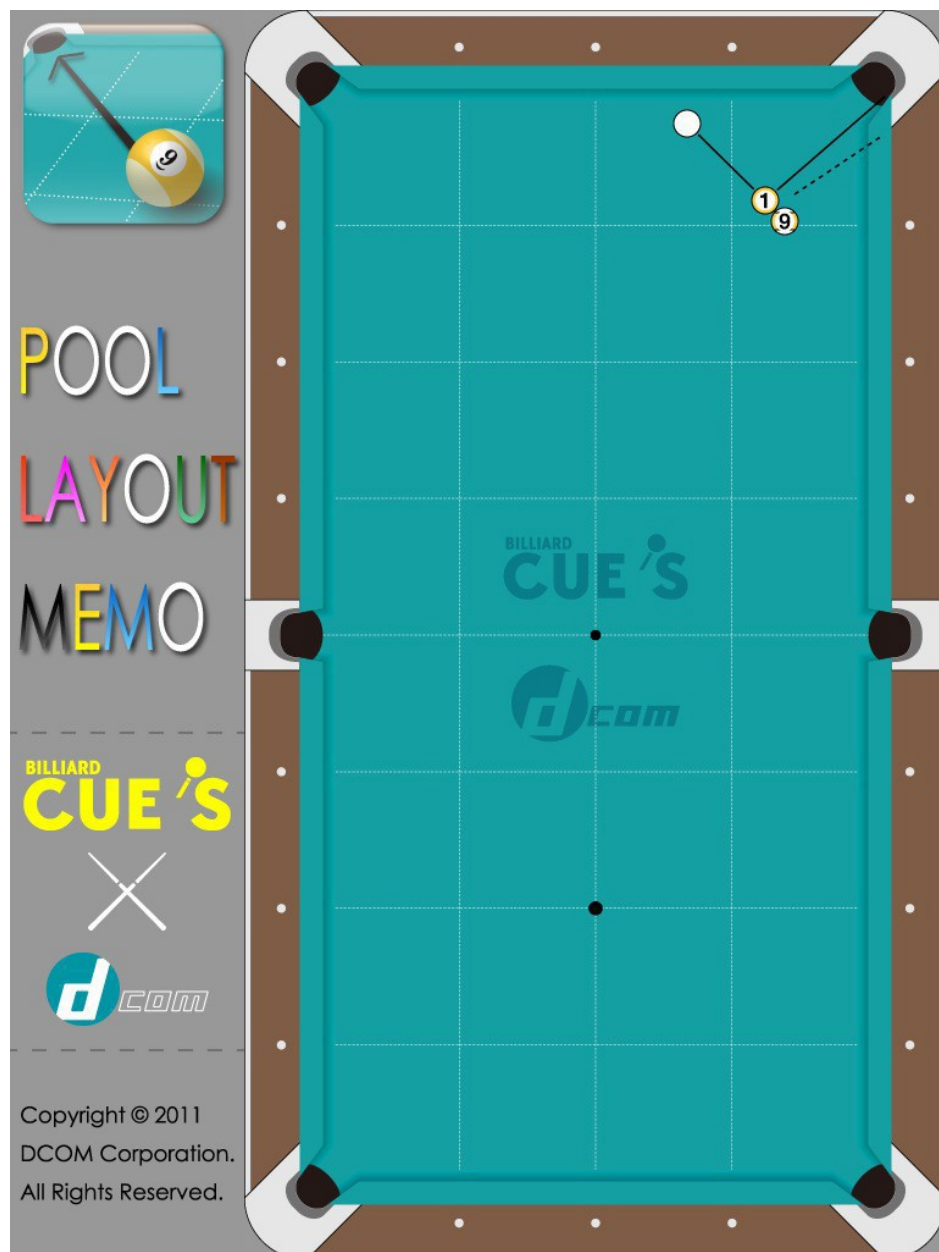
Once you find the trajectory of your natural jump shot, it is relatively easy to know where to place the cue ball.

## SHOT 8: **Bouncing back from the tangent line**

Here is one that comes up more in 8 ball and straight pool than rotation games, but the concept is well worth knowing. With some weight behind the object ball, such as two balls or a rail, you can bounce the object ball backwards from the tangent line into the pocket. I have found a thin hit slowly with outside spinning cue ball to work best on this type of shot (right english in this case).

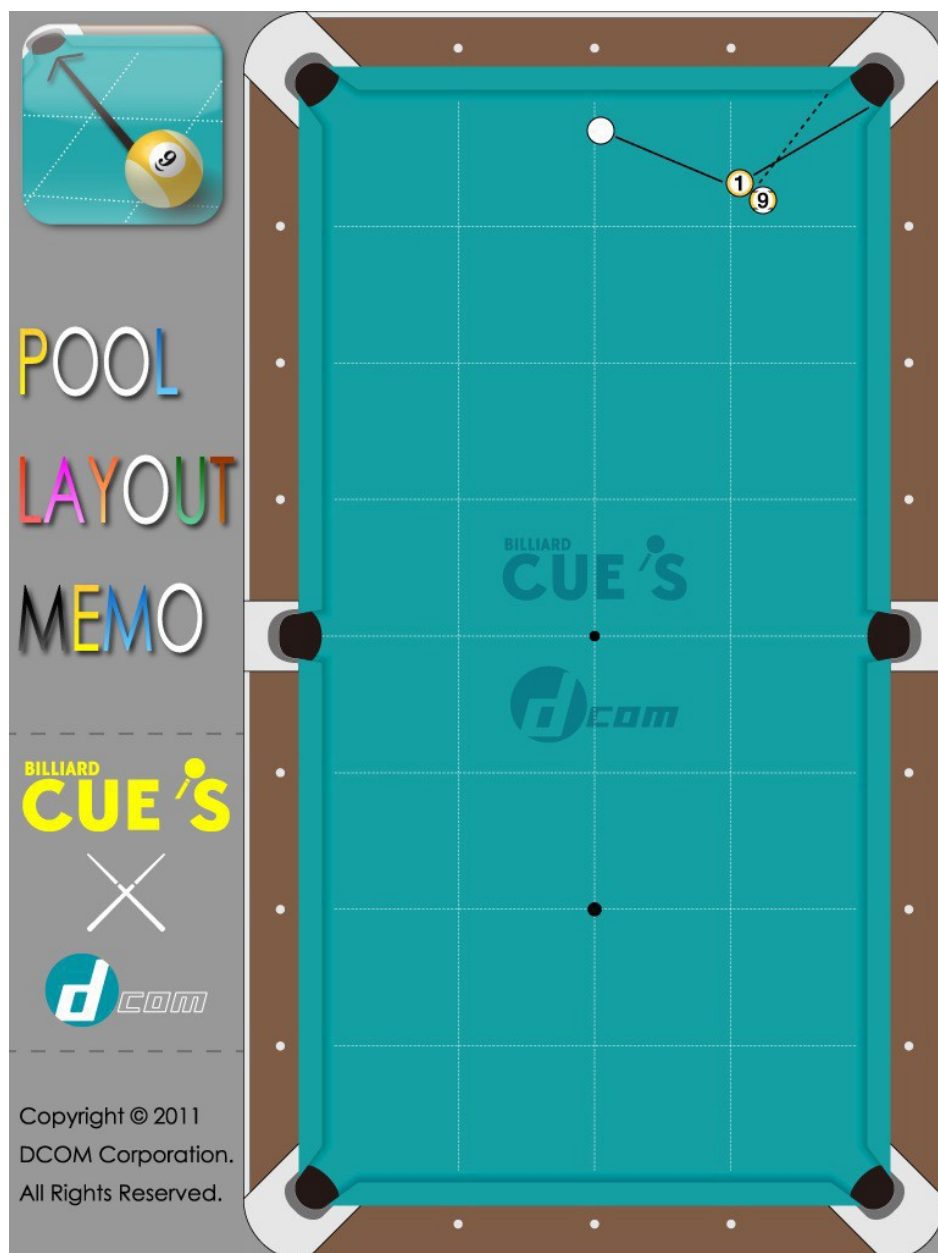


## SHOT 9: A mind-bending bounce back



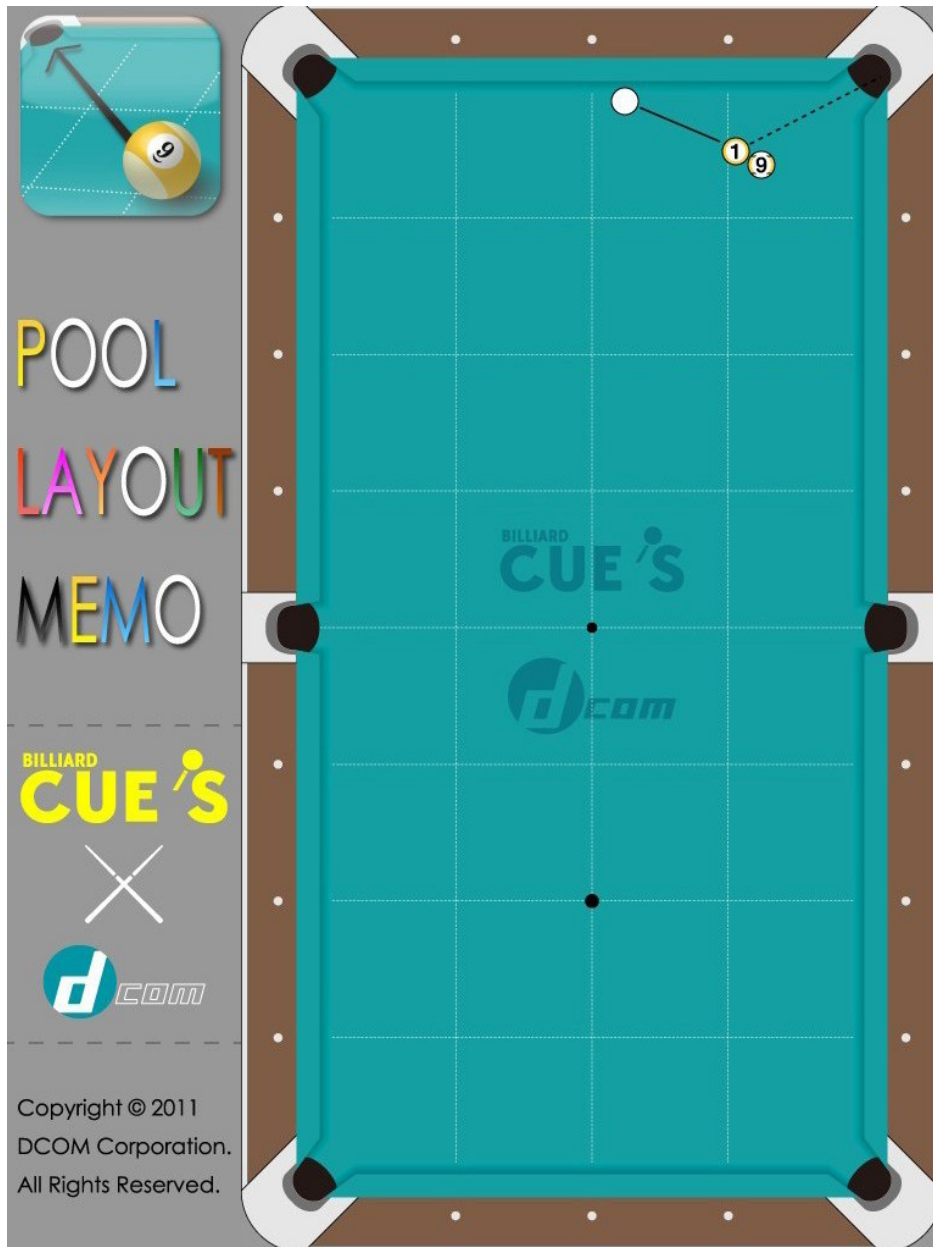
Once you have your mind around shot 8, here is shot 9 to boggle your mind. With a slow, outside spinning cue ball and a thin hit, you can actually bounce the cue ball back slightly from the tangent line with only one ball behind it. This works better on new cloth and balls, but this idea can pull you out of a tight spot. This shot takes practice to find the right blend of spin and speed, but will surprise you when you pull it off.

## SHOT 10: Pushing the middle ball forward



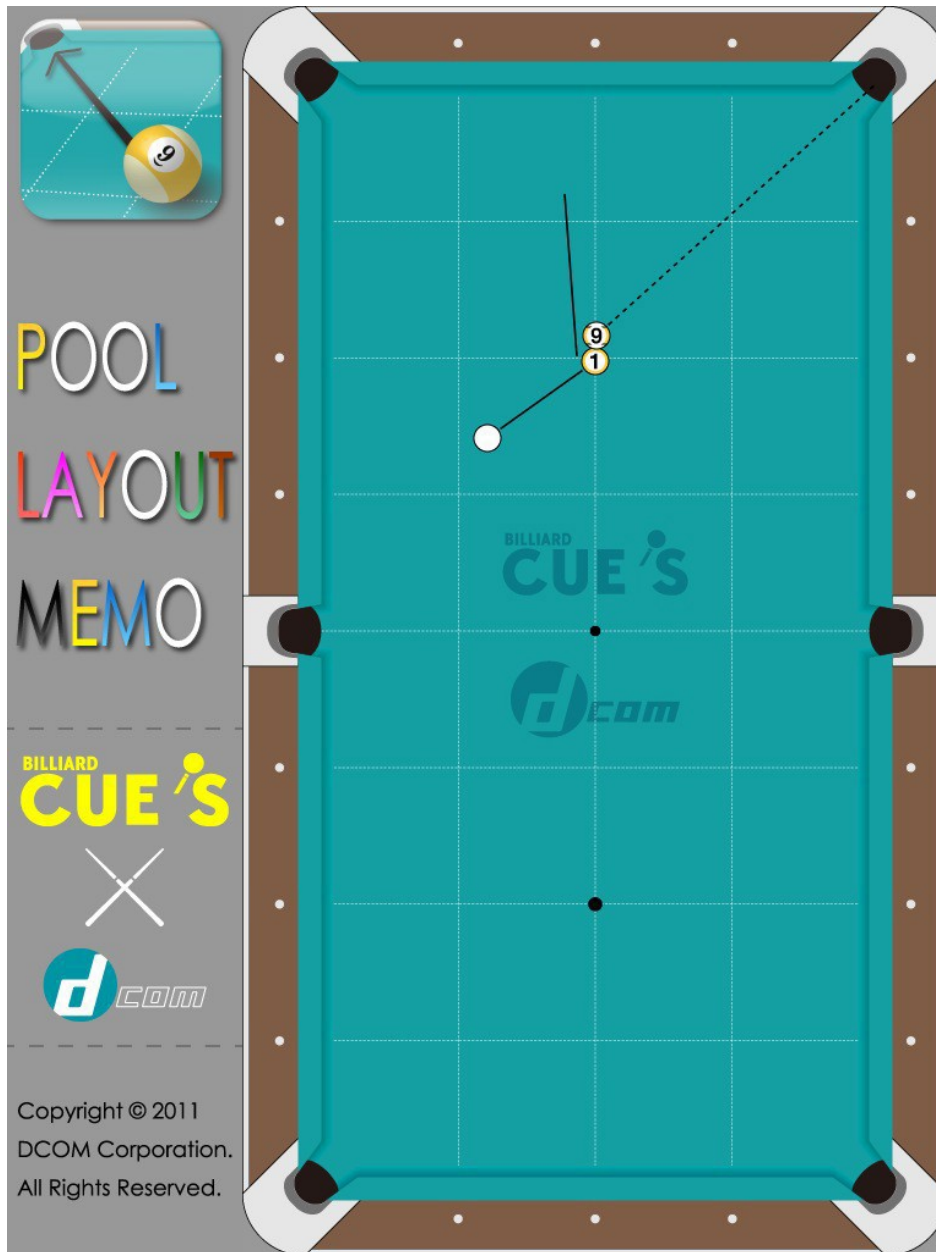
Here is another way to bend the stun line, this time with draw. Using a lot of draw and a full hit on the cue ball, we can push the middle ball (the 1 ball) slightly forward of the stun line to the pocket. This shot requires a really good draw stroke. Make sure to hit this hard enough to reach the pocket.

SHOT 11: **Even more on pushing the middle ball forward**



This shot is extreme, but if the balls lay just right, an almost full hit pushes the object ball forward a lot further than seems possible. Hit this hard with good draw and a hair off center away from the pocket.

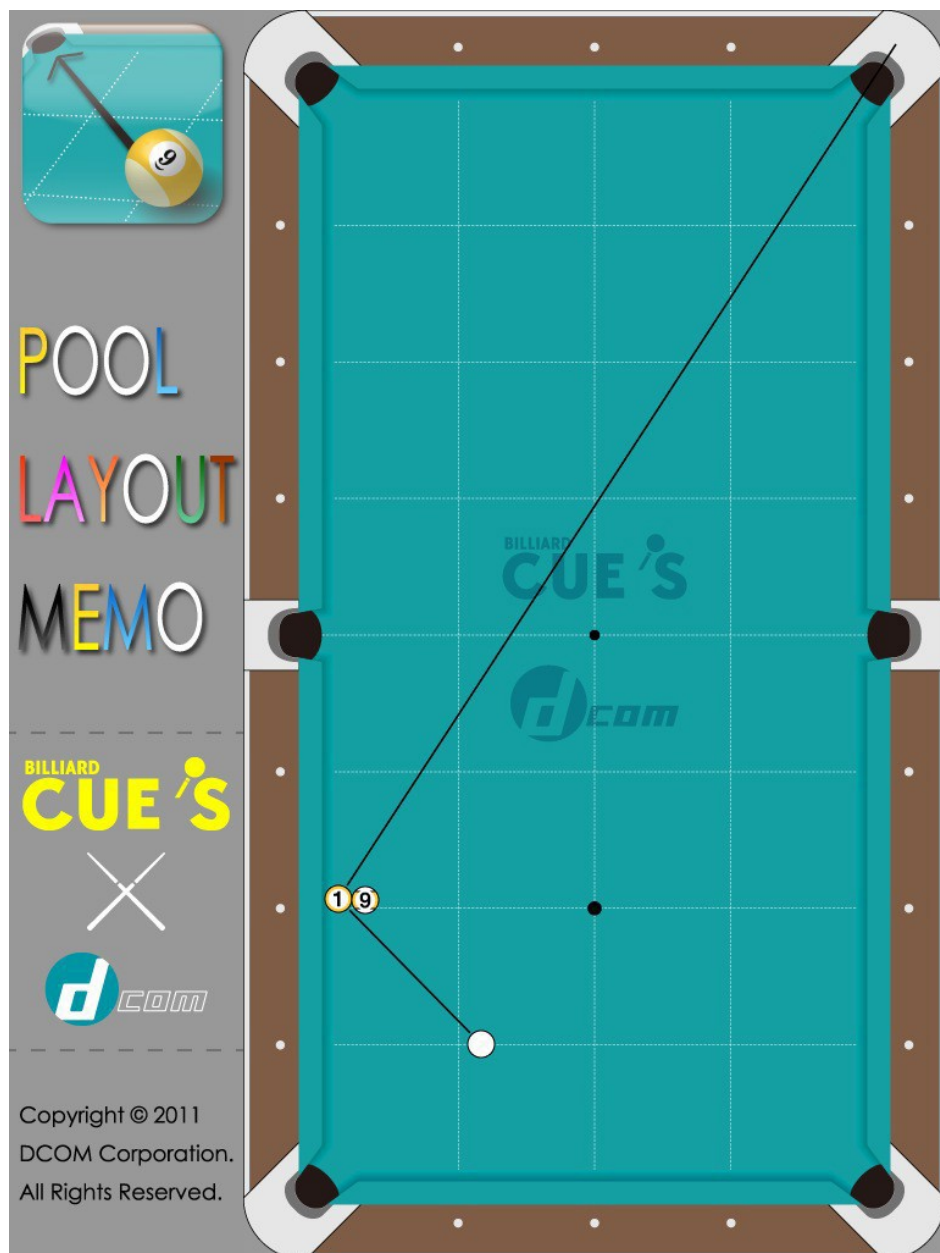
## SHOT 12: Spin and contact-induced throw



This shot combines the effects of spin-induced and collision-induced (*aka* contact-induced) throw. The cue ball hits the one first thinly with right spin. The cue ball kisses off the one throwing the 9 slightly to the left. The right spin stays on the cue ball and throws the 9 ball farther to the left. It is amazing how much you can throw this shot.

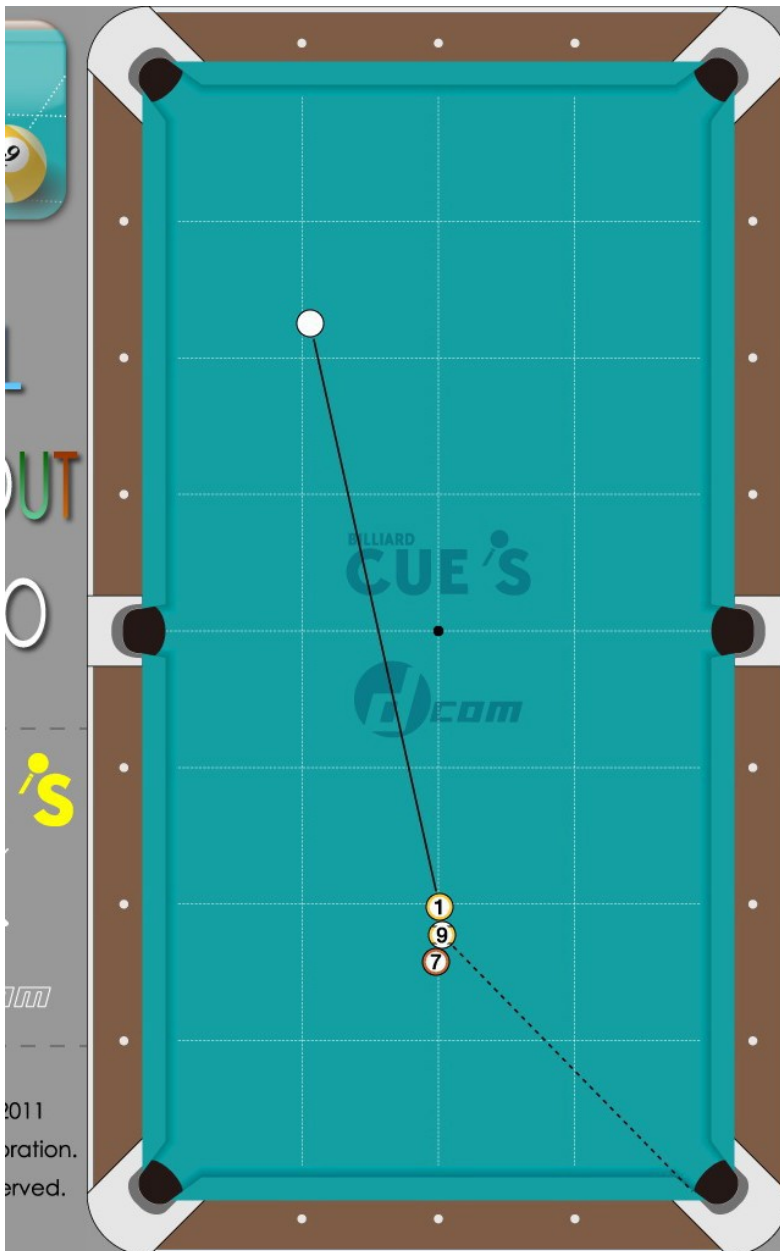


### SHOT 13: Another rail compression bank



In this shot we cut the 1 slightly and hit it firmly enough to compress the cushion. Make sure to look closely at clusters frozen on the rail. These compression shots are easily missed.

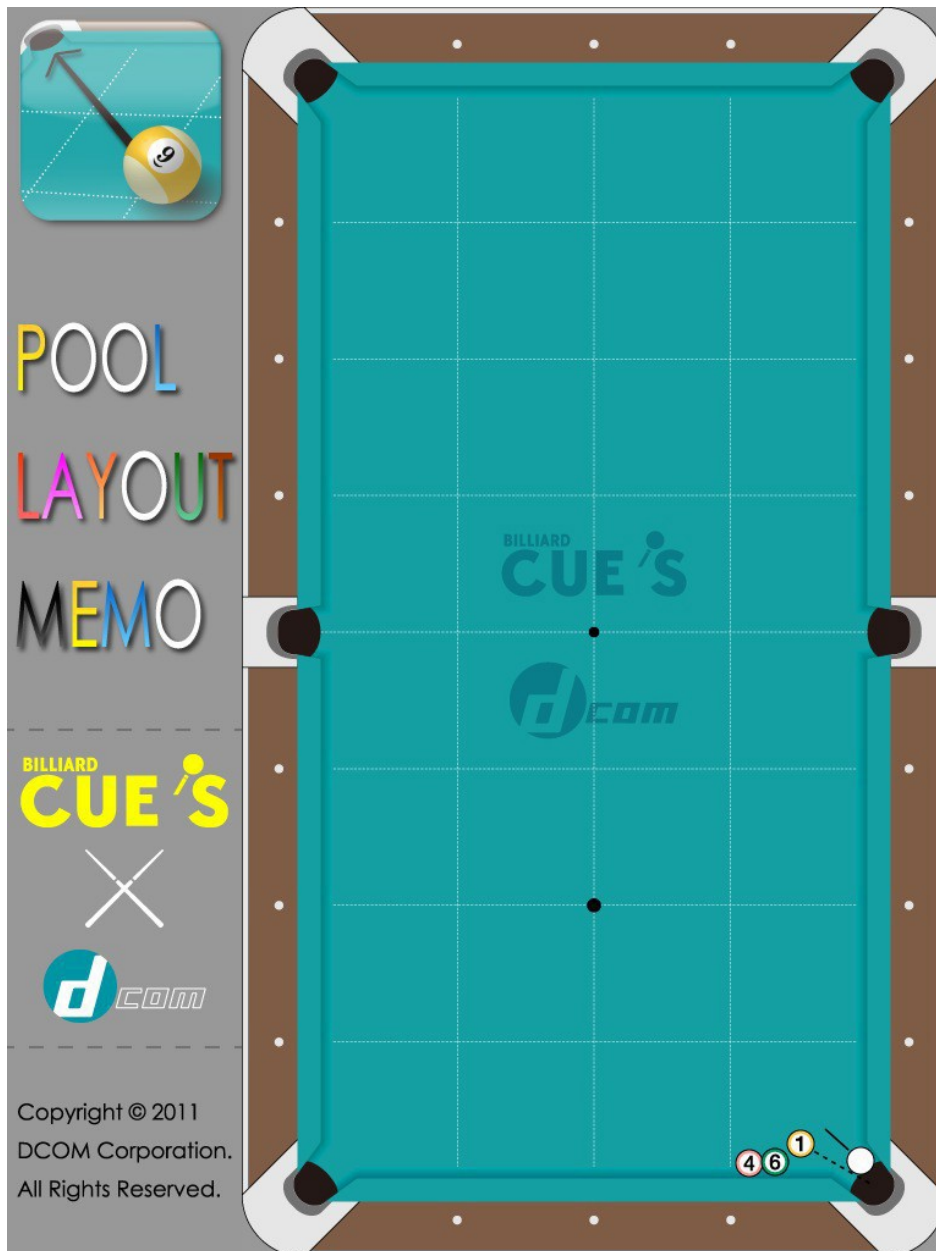
## SHOT 14: A theory of weights shot



In this shot, the 1 and 9 are spotted correctly, but the 7 is frozen slightly off line to the left. A full hit on the 1 with maximum draw magically pushes the 9 toward the pocket. Larcenous one pocket players have been known to tap a ball into the place where the 7 is so that subsequently spotted balls settle in to the correct position for this shot. Nefarious or delicious is not for me to say.

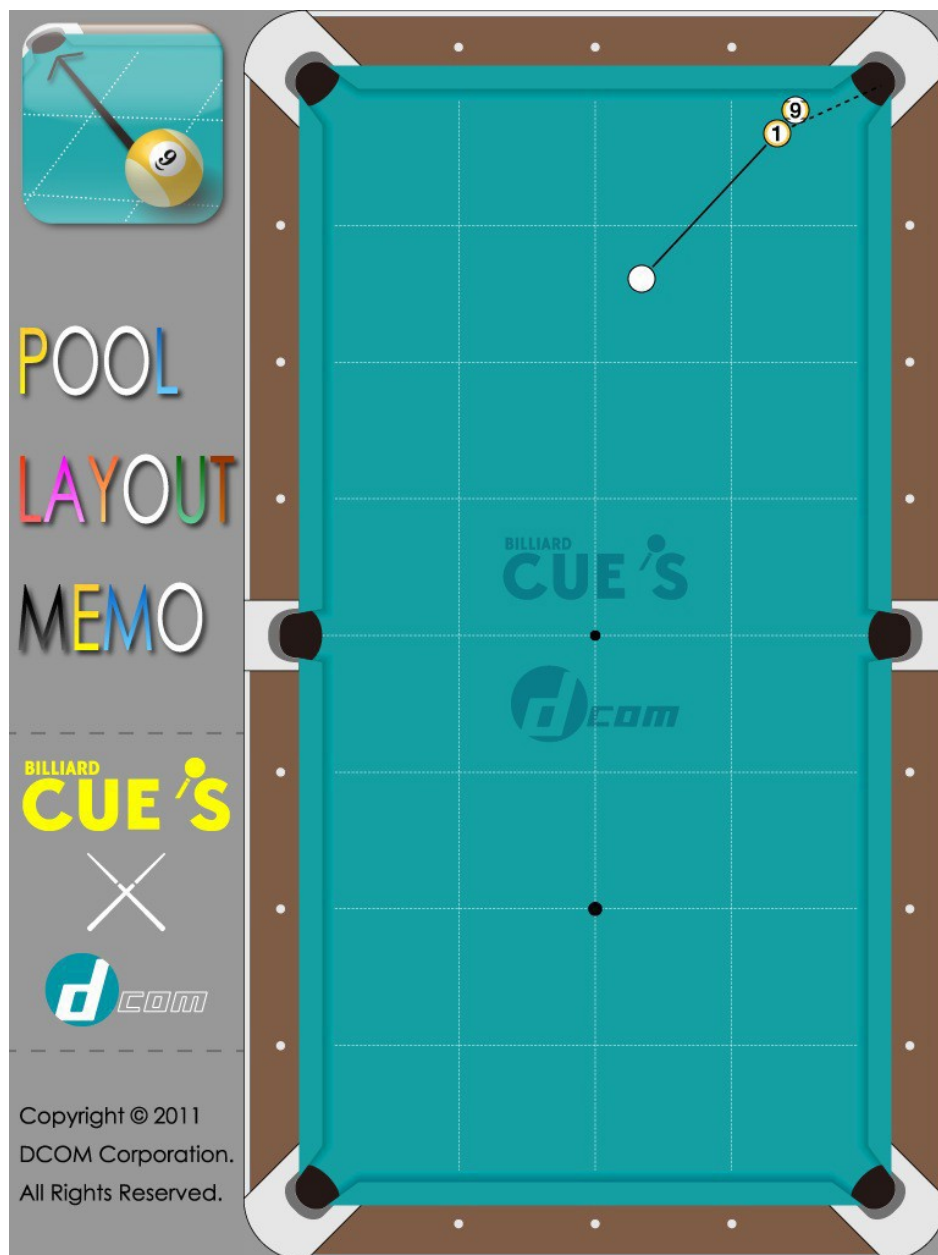


## SHOT 15: **Amazing bounce back**



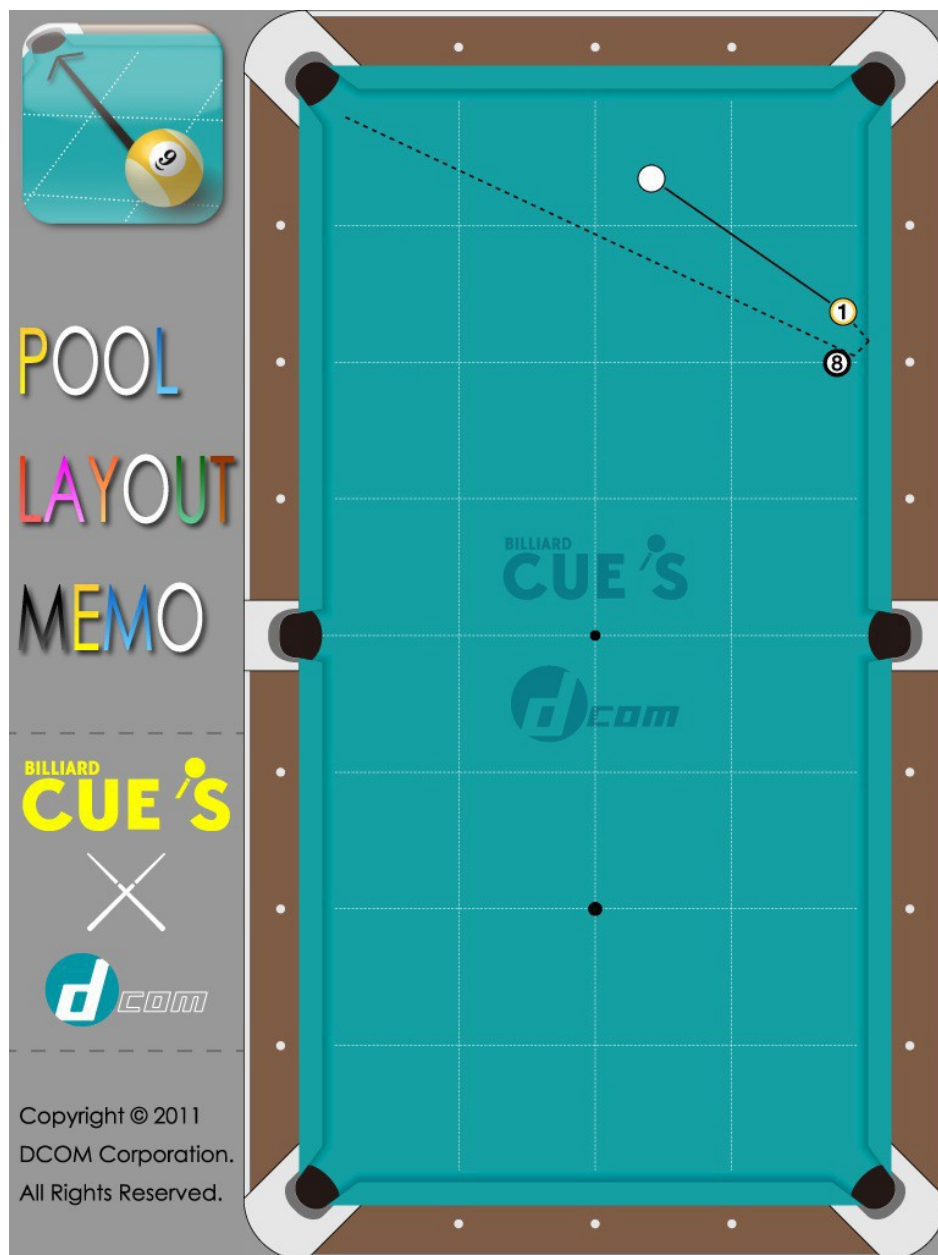
By hitting the 1 thin on the right side, it bounces back toward the pocket. This 1 isn't hit so hard and a high vertical axis cue ball will get the job done. Seemingly magic when it works!

## SHOT 16: Another push through shot



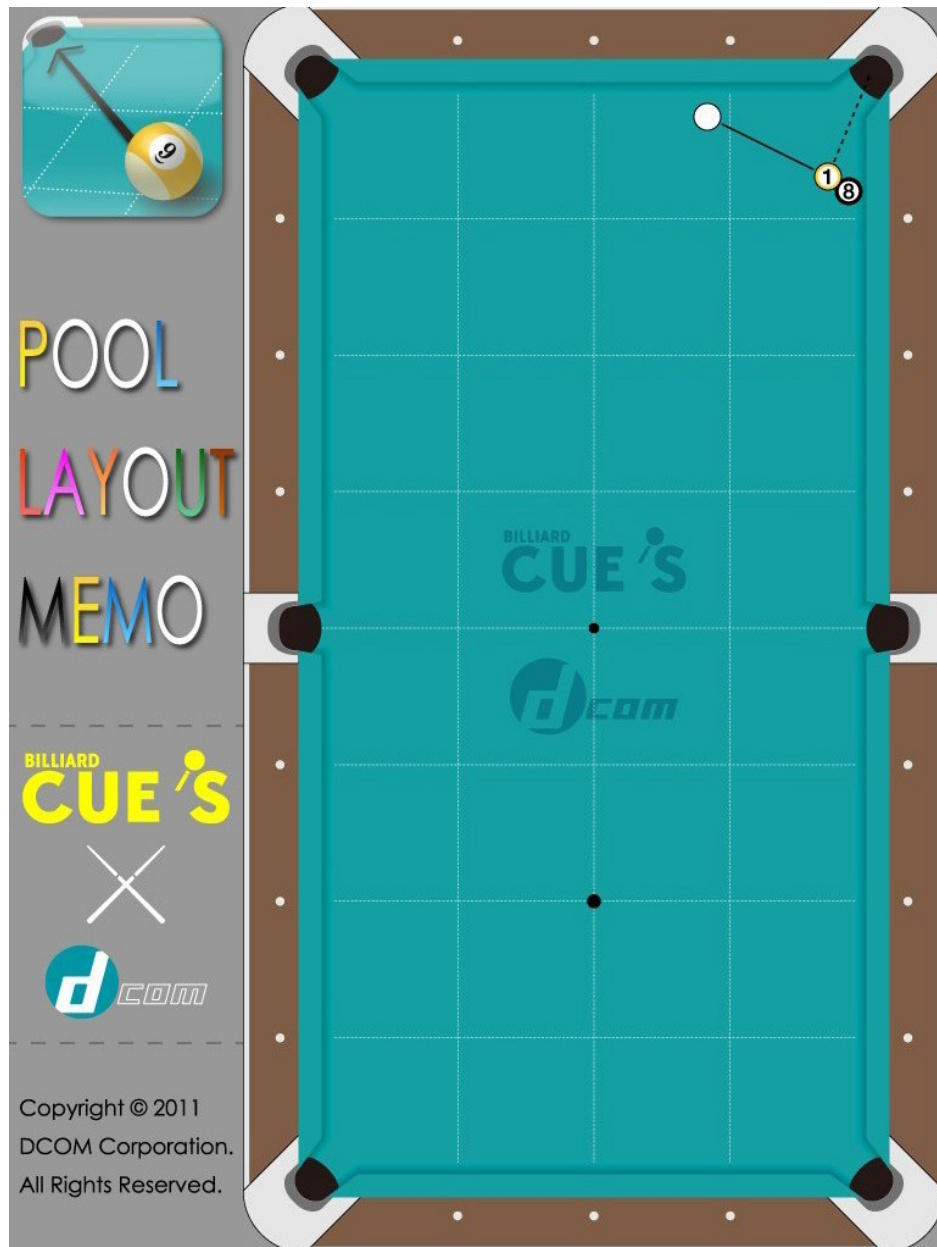
Hit this shot full in the face with good draw. The 9 pushes into the rail and bounces, leaving the one ball to push forward into the pocket. Again, this requires a good draw shot on the vertical axis of the cue ball.

## SHOT 17: More magic off the rail



This is one of those shots that once you see it, it is obvious. But finding it is the trick. I've shown this shot with the kiss heading to the corner pocket. It can also be made in the side, depending on how the balls lie.

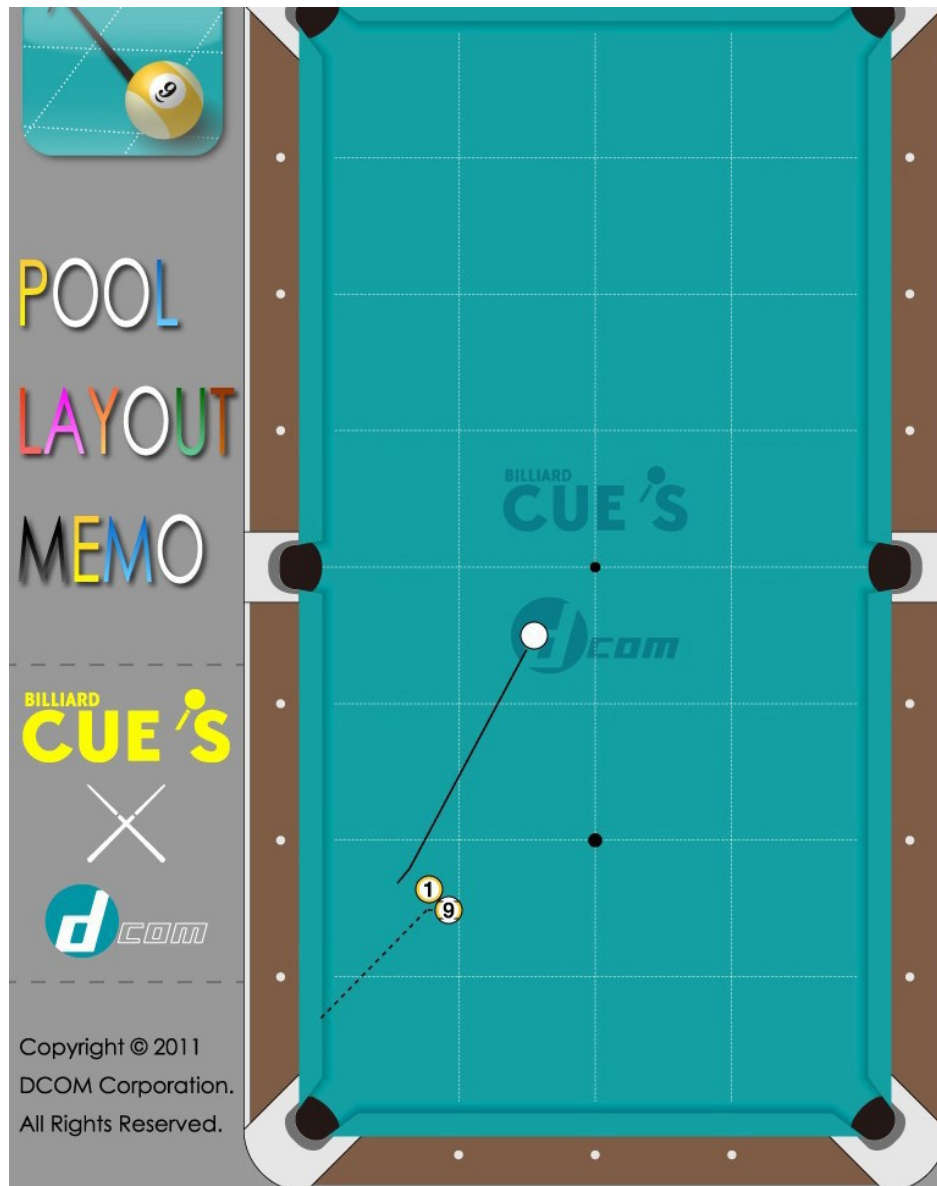
## SHOT 18: Rail push back



For this shot, the 8 and the 1 are frozen together and to the rail. A 1/4 ball hit on the right of the 1 pushes it into the 8, which is frozen to the rail and pushes back. The result is that the 1 ball bounces back into the pocket. You don't have to hit this very hard, but make sure to reach the pocket!

## SHOT 19: Thin hit bounce back

Here is another magic shot. The kiss line is high of the pocket, but a very thin, hard hit with a skidding or drawing cue ball will push the 1 into the pocket off the 9.



The cue ball has to come from high rather than too straight on. Experiment to see what the limits are with your stroke and equipment. Also make sure the 1 is far enough from the rail to beat the double kiss. This shot defies physics, but works!

## SHOT 20: A kiss/throw combination

The 1 and 3 are lined up to hit the 6 on the thin side. This moves the 3 to the right, hitting the 9 and pocketing it.

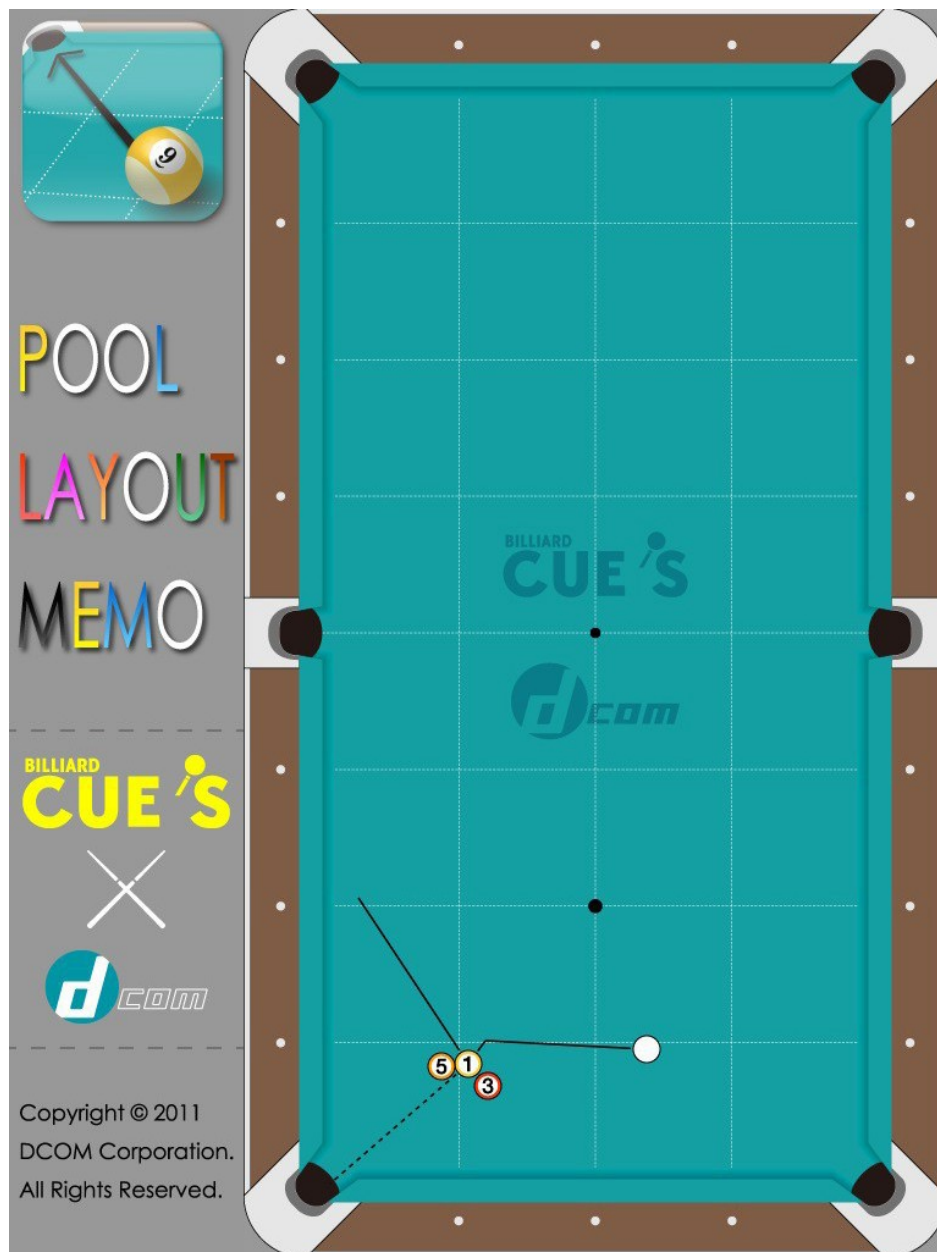


Make sure to hit this softly and just touch the six.



## SHOT 21: **Quicker than the eye can see**

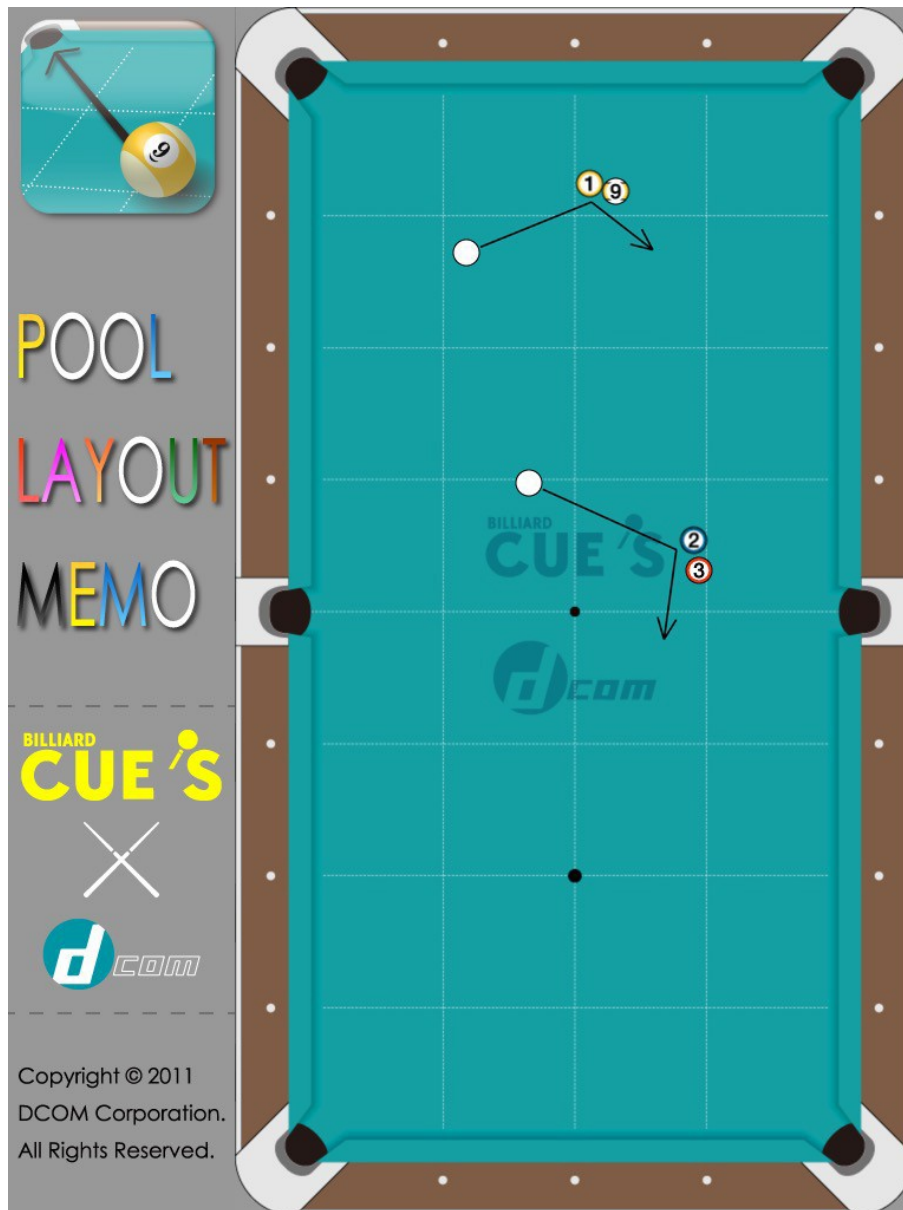
Here is one that Tom Simpson demonstrates. For this shot, the balls are frozen with the kiss line between the 1 and 3 heading for the corner pocket.



Hitting the 1 into the 5 causes the 1 to ricochet off the 5, then the 3, and head to the corner pocket.

## SHOT 22: **More spin and collision induced throw shots**

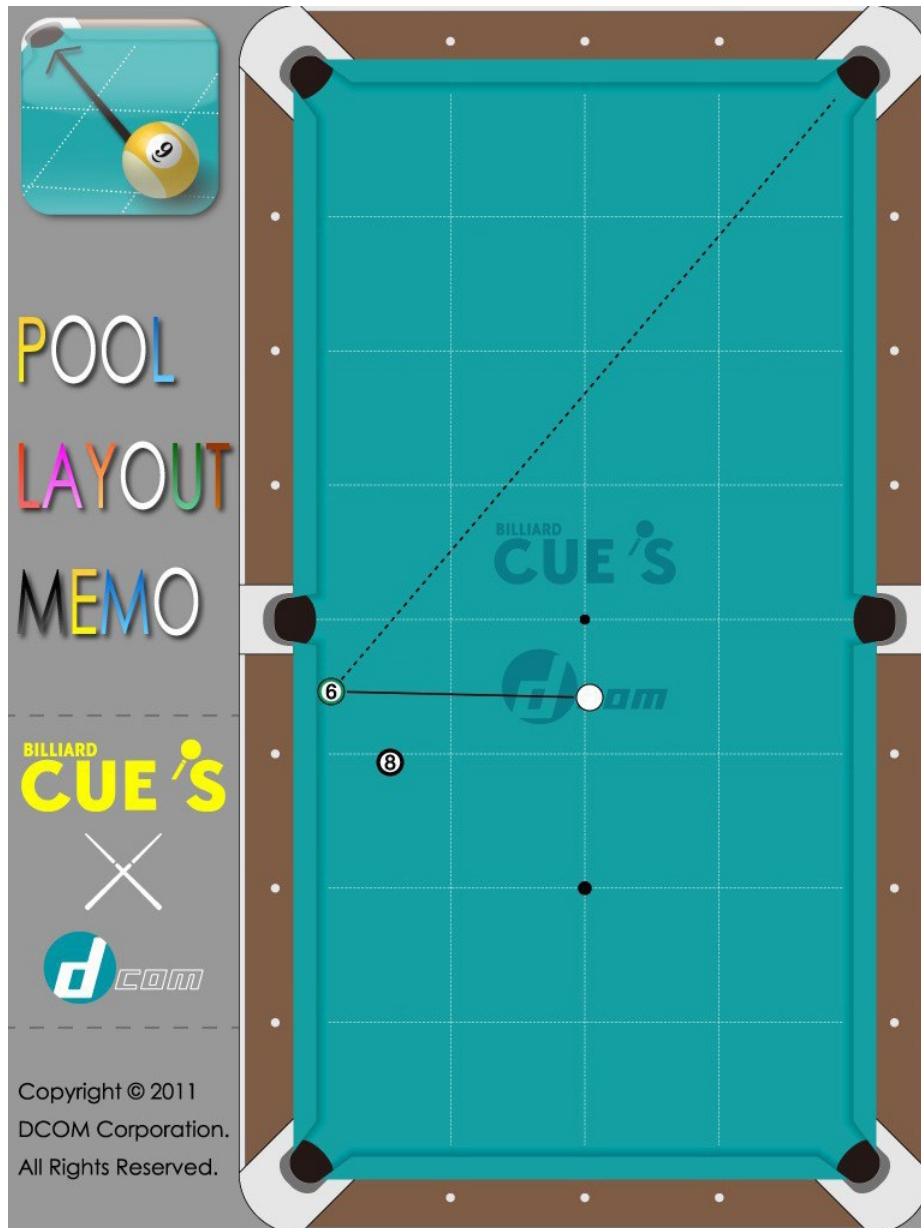
These shots are similar to shot #4. You just clip the first ball, with inside spin. The collision-induced and spin-induced throw send the called ball to the pocket. Make sure to hit this shot softly to maximize all the throw.





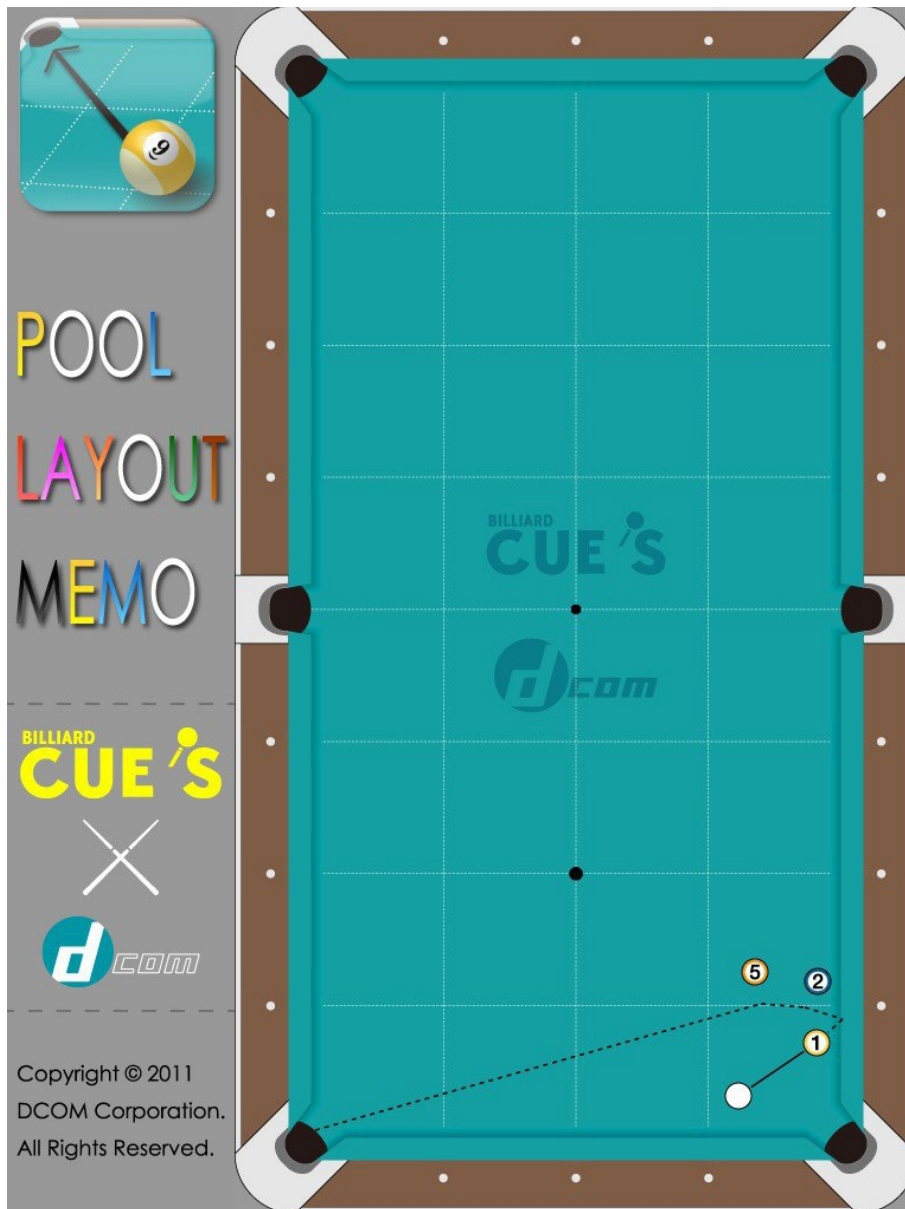
## SHOT 23: Nice double kiss

Here is a shot from Mark Powell that one pocket players can use. The exact position is dependent on the rail, but once you learn how your rails act, you have another tool in your arsenal of magic escapes. What makes this work is that the 6 ball double kisses off the cue ball and heads to the pocket.



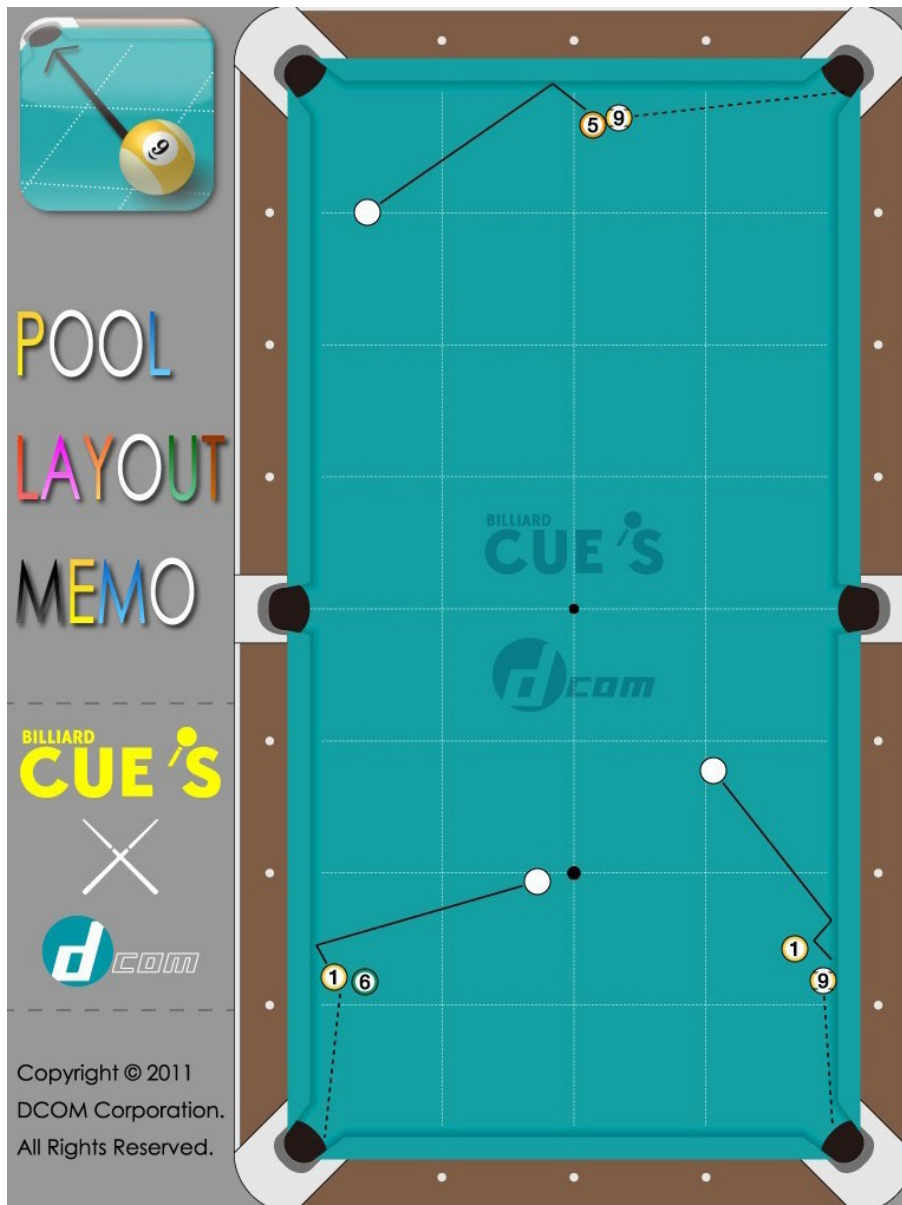
## SHOT 24: Idea extension

Go back to shot #17. Mark Powell extended the idea to a three ball cluster! Look for these possibilities. Once you know how the balls react, you can apply the principles to the problem you are facing on the table.



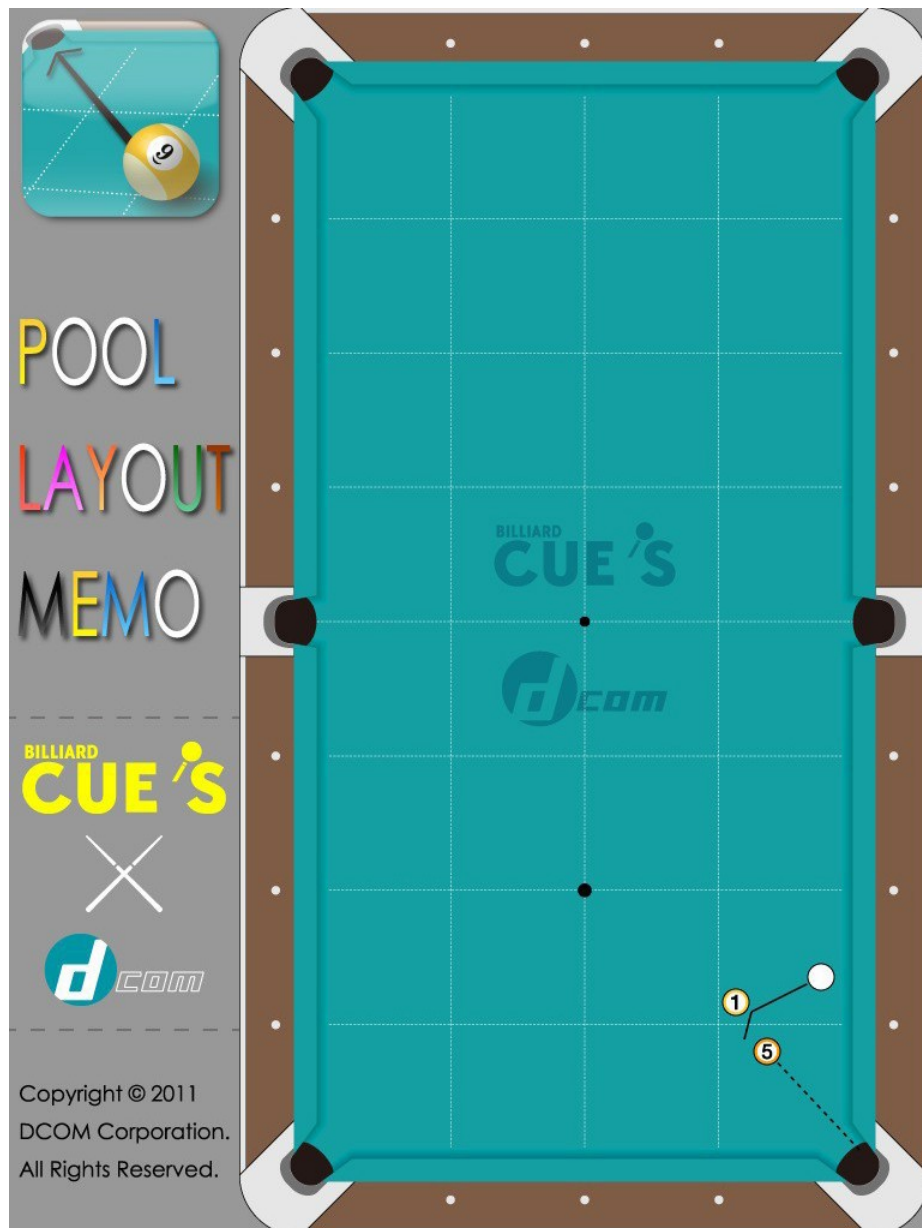
## SHOT 25: Rail-first ideas

Here are three shots with the idea of using rail first. Credits go to Tom Simpson and Mark Powell for reminding me of them. On the left we have a rail-first kiss shot, on top is a rail-first throw shot, and on the right is a rail-first billiard. Look for these shots!



## SHOT 26: Using the cue ball

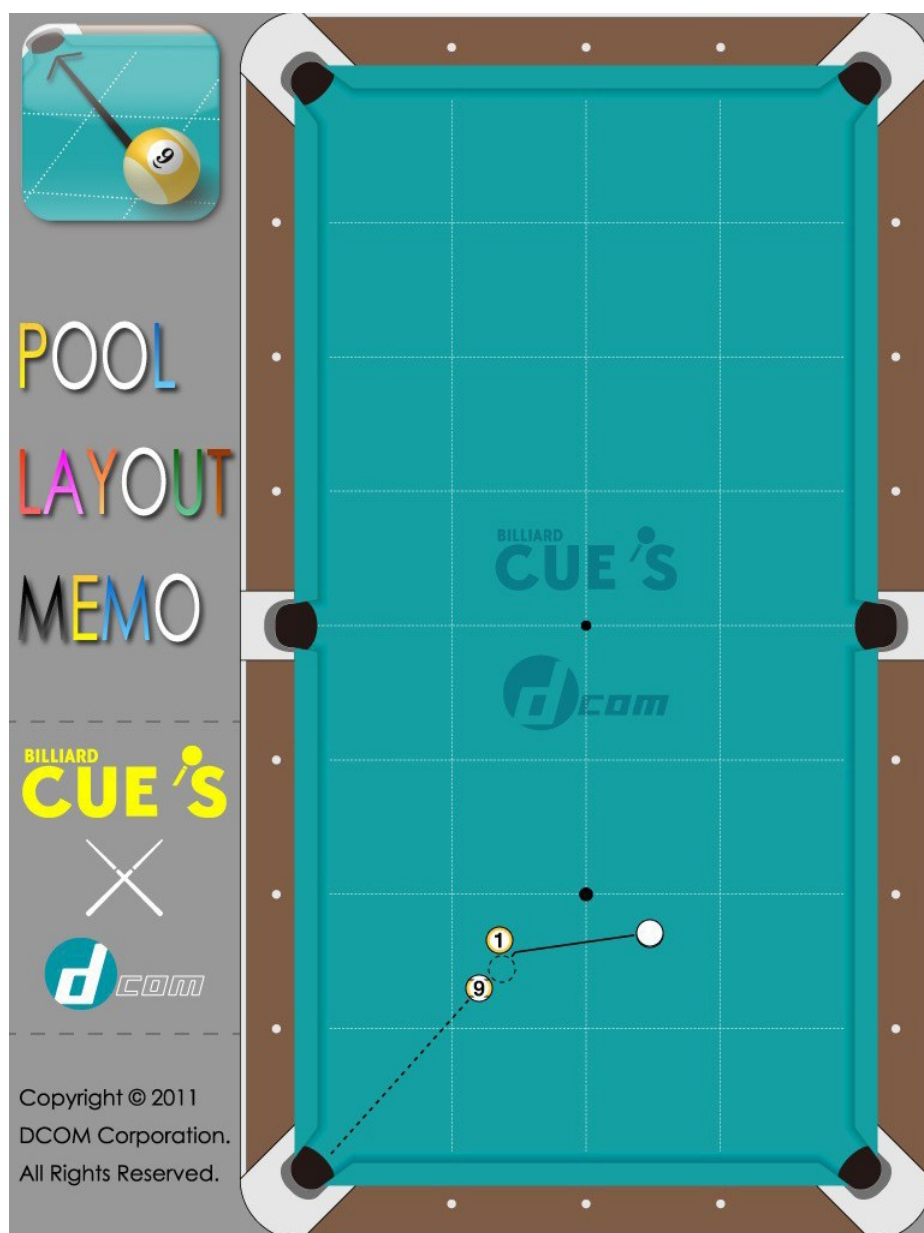
Here is a shot that comes up once in a while that uses a *billiard* to change the cue ball path, pocketing the object ball. Looking for complex interactions between balls is part of the art of playing pool.



## SHOT 27: More on using the cue ball

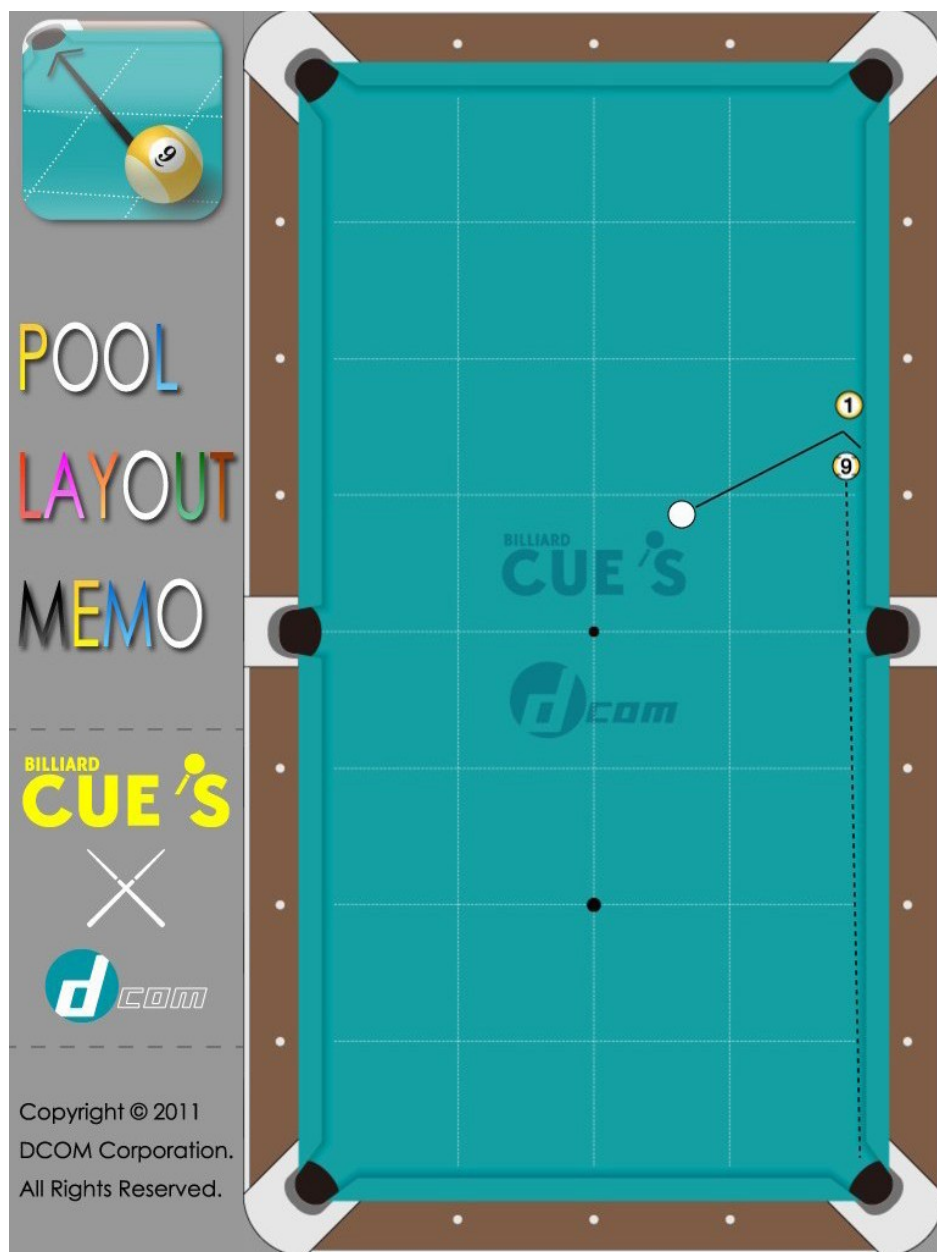
Credit for this shot goes back to Mike Eufemia. Sometimes the kiss off an object ball is just a little off the line to pocket our object ball. What Mike did was use spin to throw the ball in the desired direction.

In this diagram, the kiss off the 1 ball looks to push the 9 a little to the high side of the pocket. Using right spin on the cue ball slightly throws the 9 to the left, toward the pocket. Brilliant!



## SHOT 28: **A surprising kiss**

Here is a shot you won't see too much, but it does come up once in a while.



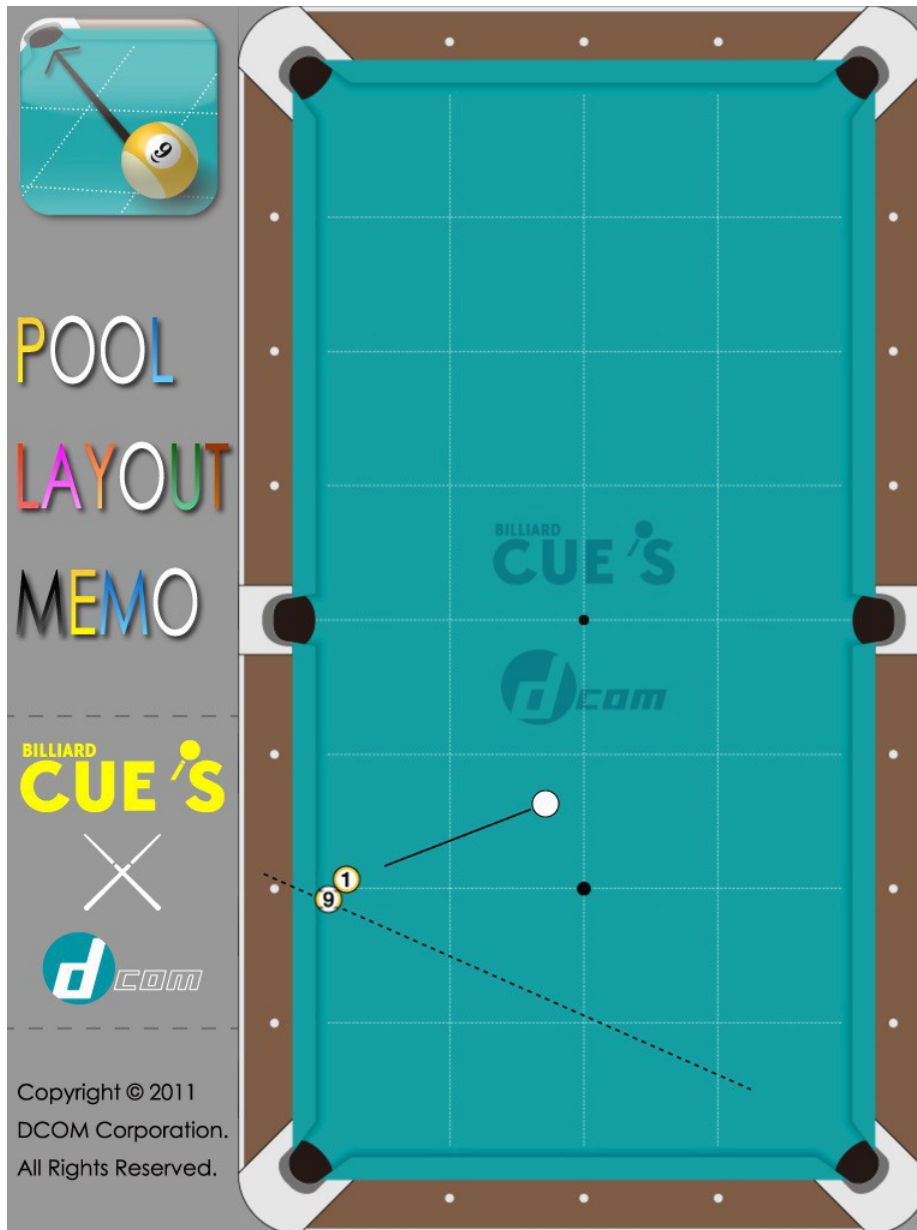
Hit this with a stunned cue ball and fairly hard. This will get some gasps from the audience!



## SHOT 29: Throwing a bank short

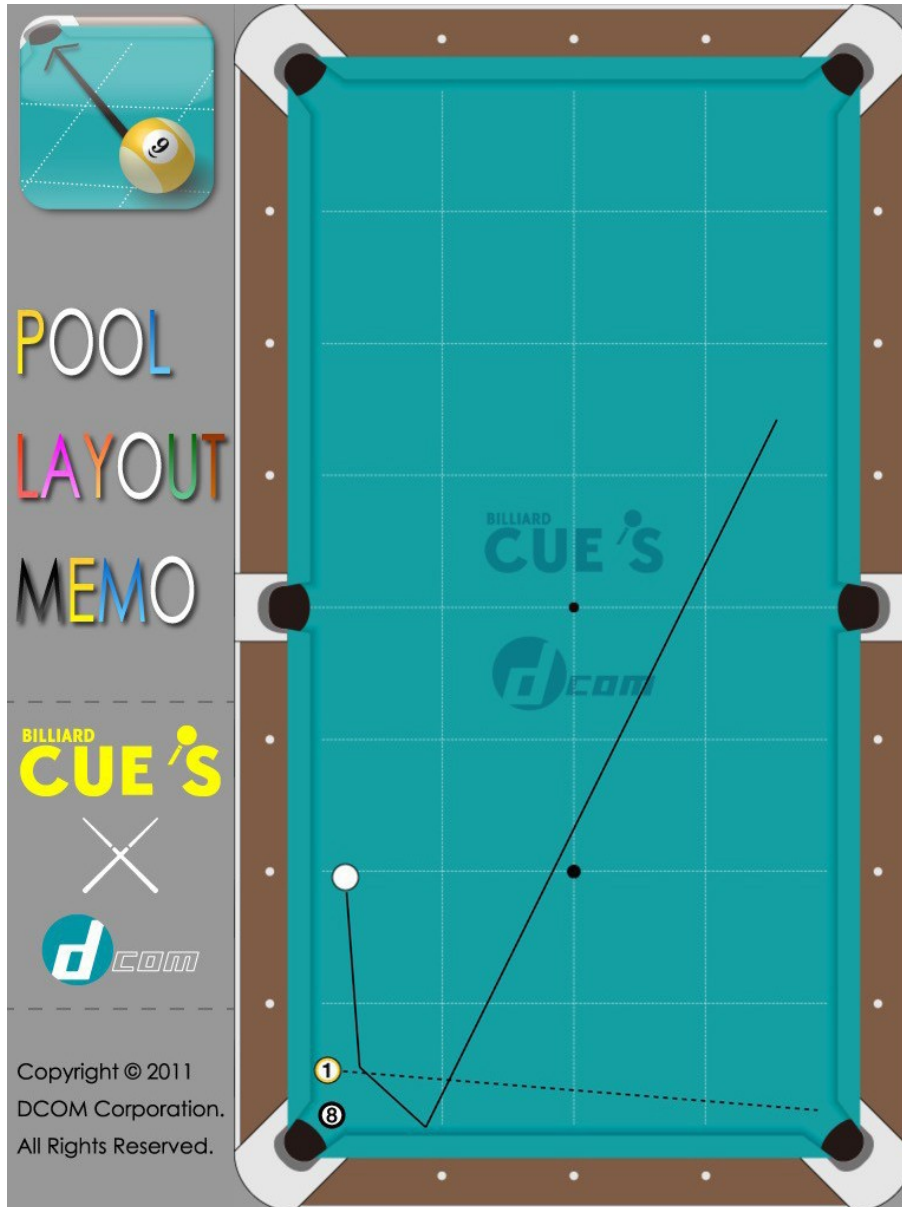
Hit this with center ball and a sliding cue ball. The one skids into the 9, and grabs it, producing right collision-induced spin. Use a firm stroke to shorten the bank more.

Another surprise.



### SHOT 30: **Escape from a death trap**

It looks as if you are in a death trap. The 8 is hanging and your last ball looks like it has nowhere to go. Use low left with maximum spin and a really thin hit. This isn't as hard as it looks!

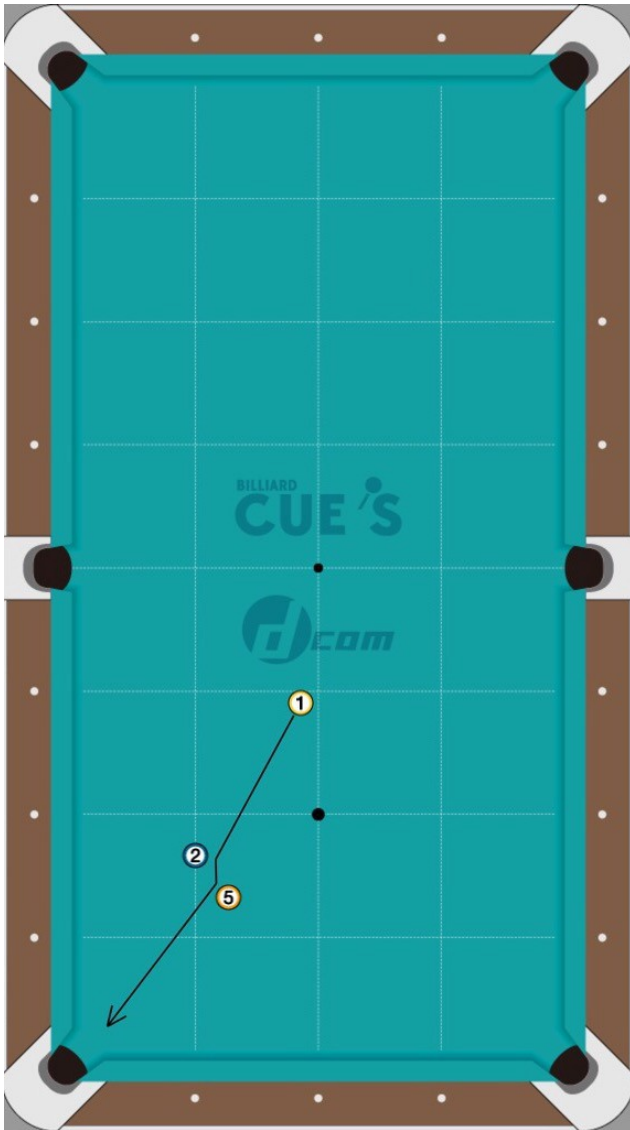






## SHOT 32: **Through the gate**

This shot comes up once in a while and it's easy to overlook. Make sure to take the throw out of the shot and don't over hit it.

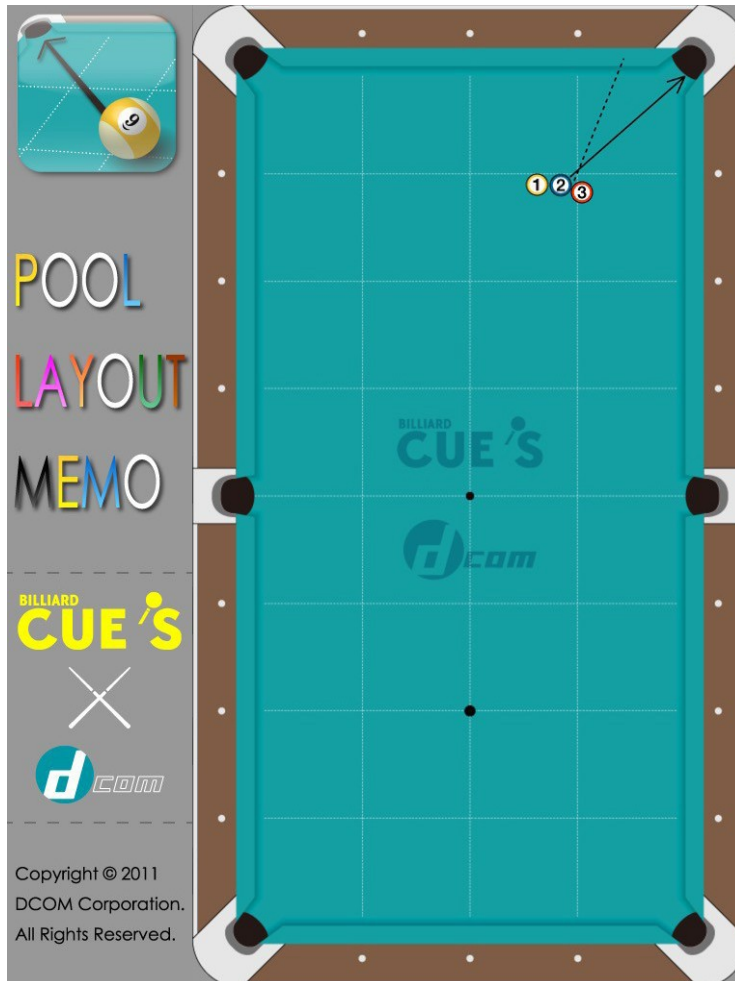


What happens is that the 1 kisses off the 2 and then into the 5 towards the pocket. Sometimes when you look blocked, you still really have a decent shot.

## SHOT 33: Theory of weights

Here is something that once you see it makes perfect sense, but until then seems impossible.

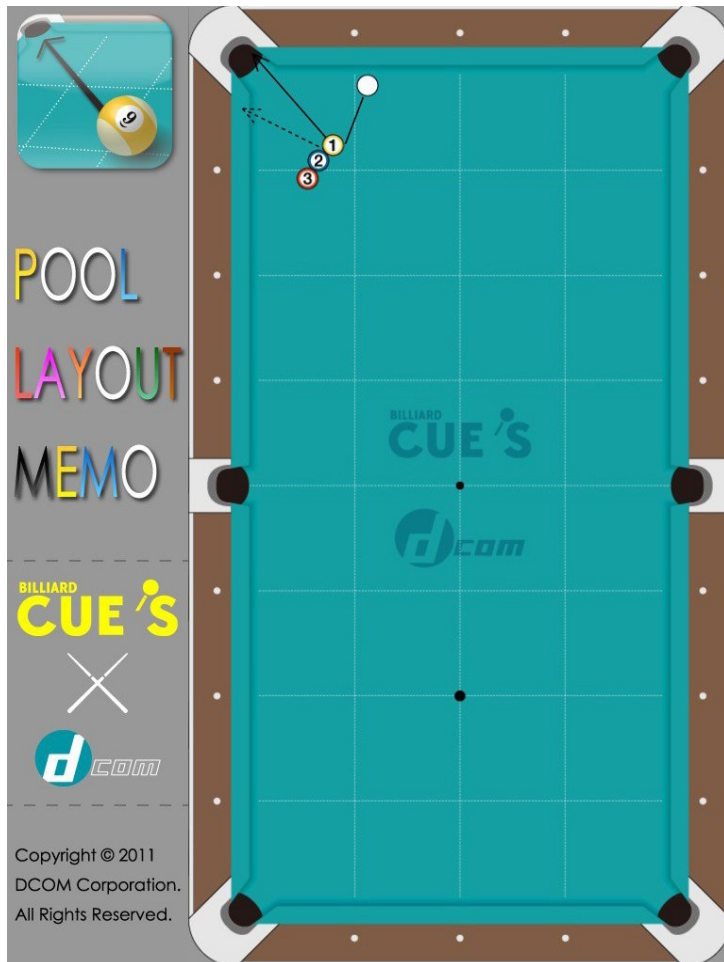
Take a look at this layout:



The stun line between the 2 and the 3 is aimed along the dotted line at a half diamond away from the pocket. As long as the balls are frozen, the weight of the cue ball and the 1 ball push the 2 ball forward along the solid line and into the pocket! Make sure you don't hit this too hard. Truly a mind-bending shot when you pull one off in a game.

## SHOT 34: Theory of weights continued

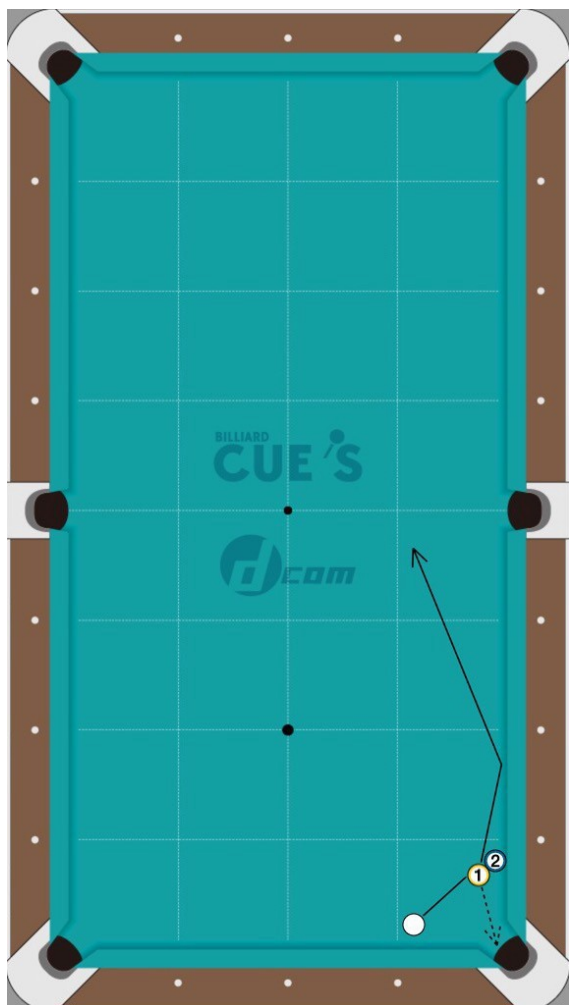
Yes, this works bouncing balls back off clusters as well. Here is what this looks like:



Hit this with a high cue ball and just enough speed to reach the pocket. The 1 ball bounces back at an angle you wouldn't expect. You can actually miss this shot if it bounces back too much.

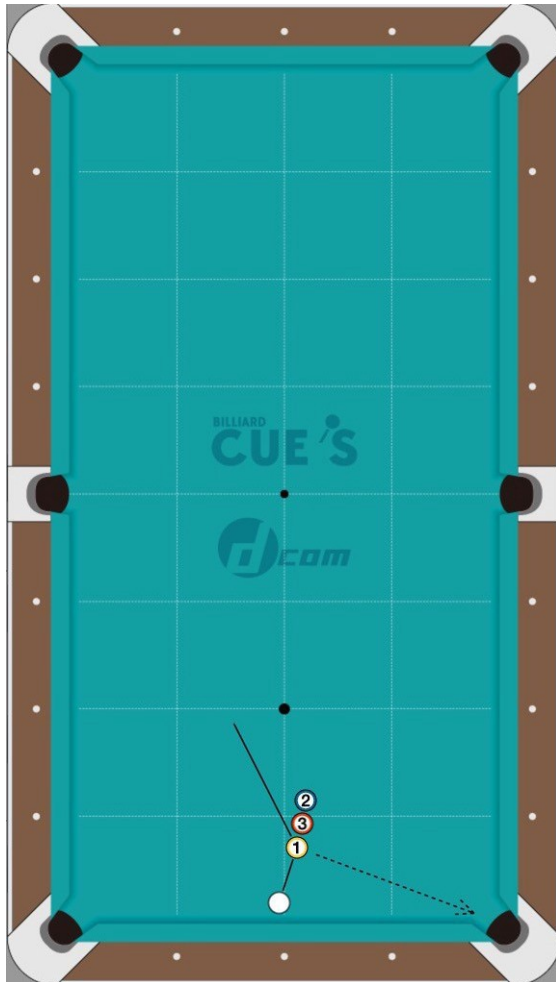
## SHOT 35: Using the rail as a weight

Here is a situation that looks hopeless. But if you hit off the left side of the 1 ball with left spin, the rail and ball weights push the 1 back at an unexpected angle and into the pocket. The balls must be frozen for this to work. Also, the best angle into the rail is dependent on the cushions. Make sure not to over hit this shot. Softly will get more throw from the sidespin.



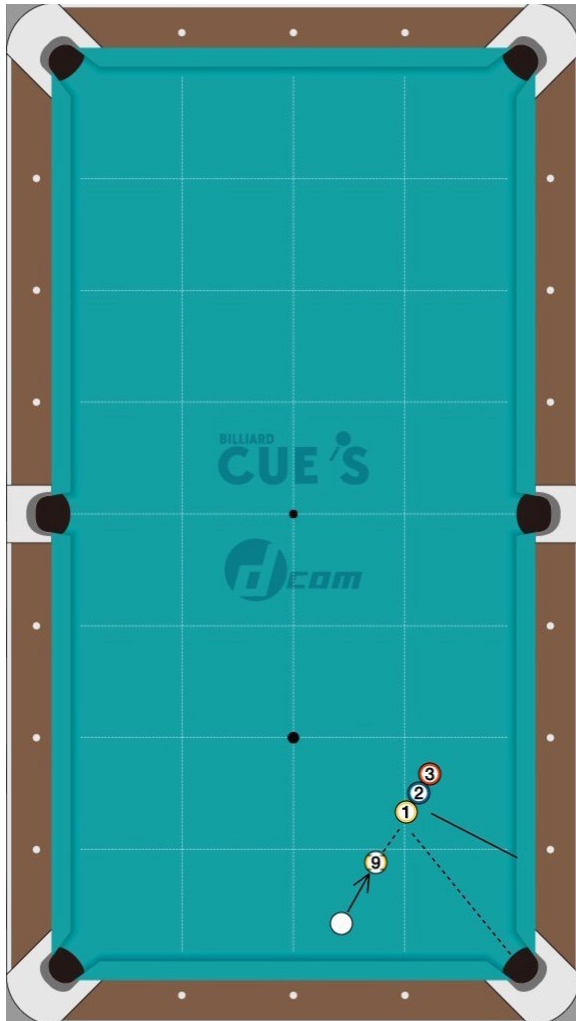
### SHOT 36: **Loose Ball Theory of Weights**

In this situation, the 2 and 3 balls are frozen and the 1 ball is about a quarter inch or so from the 2. Using a high cue ball, and hitting the 1 slightly to the left of center, you can bounce back the 1 about a half of a diamond from the stun line. Amazing!



## SHOT 37: **More loose ball magic with the Theory of Weights**

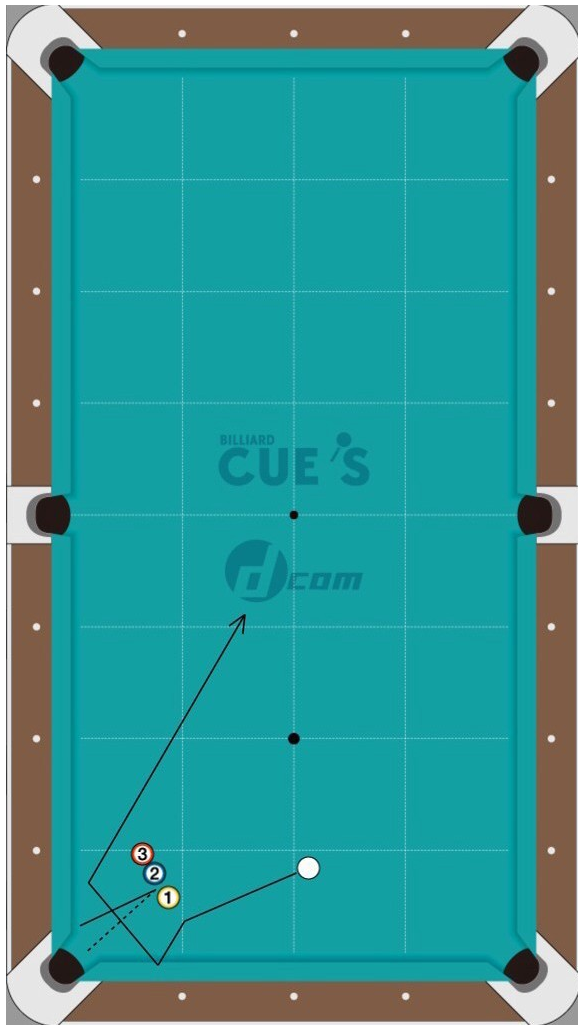
In this situation, the loose ball gap is about a half inch or greater. If the wall of balls is three frozen balls, we can use that wall of balls to bounce the object ball back from the natural stun line. Here is how this looks:



You'll have to experiment a little, but once you get the hang of where to aim, it is amazing how far back the object ball bounces. Use a strong stroke on this one. One note is that if you want to eliminate the bounce back effect, make sure to cut the shot thinner. This reduces or eliminates the bounce back effect. In fact, once you start trying these shots you can control to some degree the amount of bounce back.

### SHOT 38: **A thin cut use of the Theory of Weights**

In this situation, if we hit the object ball into the two frozen balls, the kiss will be light and we will hit the rail. A much thinner hit with a strong stroke bounces the object ball off the two frozen balls into the pocket. This shot is usually overlooked or mis-played!



The cue ball will be moving much faster than the object ball and will miss the kiss.



## **IN CONCLUSION:**

We have revealed lots of juicy secrets. It is up to you to go to the table and play around with them so you know exactly how the balls will react to your equipment and your stroke. Once you have this feel, you will be able to modify and adapt your knowledge to many problems that come up on the table and find a decent or better shot.

*Good luck and see you on the road!*