

# BowlersJournal

INTERNATIONAL

APRIL 2023

**BREAKDOWN**

# RESIST TEMPTATION

**DON'T BE SO QUICK TO MOVE INSIDE**

THREE DRILLS FOR  
CONSISTENT RELEASE  
**PG 26**

THE COLLEGIATE  
CONUNDRUM  
**PG 38**

ROBERT WORRALL'S  
ROAD TO REDEMPTION  
**PG 56**

PBA LEGEND  
NORM DUKE

BOWLERSJOURNAL.COM  
**\$5**

# INSIDE SCOOP

*Why it's worth learning how to delay a big move to the inside when transition strikes.*

**BY BILL SPIGNER**

**There is no shortage of players** on today's PBA Tour who complain that, generally, the patterns they play from event to event have a tendency to move in too quickly.

Sean Rash, for his part, believes he has seen more than enough younger players break out on tour with big hooks and a mindset of moving deep before such a move truly, in Rash's perspective, is necessary. Rash's admonishment that those players could use more training on playing a given pattern correctly from the start, and how to stay straighter for longer, speaks to the prevailing tendency among players of all levels — pro and amateur alike — to move deep or loft gutter caps as a first op-

tion rather than some secondary or tertiary plan of attack amid transition.

But why has this tendency taken root in today's game? To what extent do Rash's sentiments hit the mark? What might the benefits be if more players found ways to play patterns straighter for a longer duration than many do today?

## **Lane Patterns: An Enduring Controversy**

While it may go without saying that lane conditions themselves play an influential role in how quickly a given shot moves in, it is worth looking much deeper into the way this plays out in real-world scenarios tour players face.

From the time when I myself started bowling on tour 50 years ago — yes, I am really dating myself here! — to now, the most controversial variable in bowling has been lane conditions. Here's the thing about that timeline, though: Seldom did I hear complaints about lane conditions when I was coming up as a youth bowler. Scoring pace generally tended to be very low, and players basically had one ball to use—hard rubber, with no fancy cores.

My, how things have changed since those simpler times in our sport. Elements such as bowling balls, lane surfaces, and today's incredible lane machines all embody progress that has generated smarter bowlers, and bowlers who often have an opinion on



**Smooth Moves:**  
Anthony Simonsen's  
versatility stands out as  
the shot moves in.



what is right and what isn't when it comes to patterns and pattern migration.

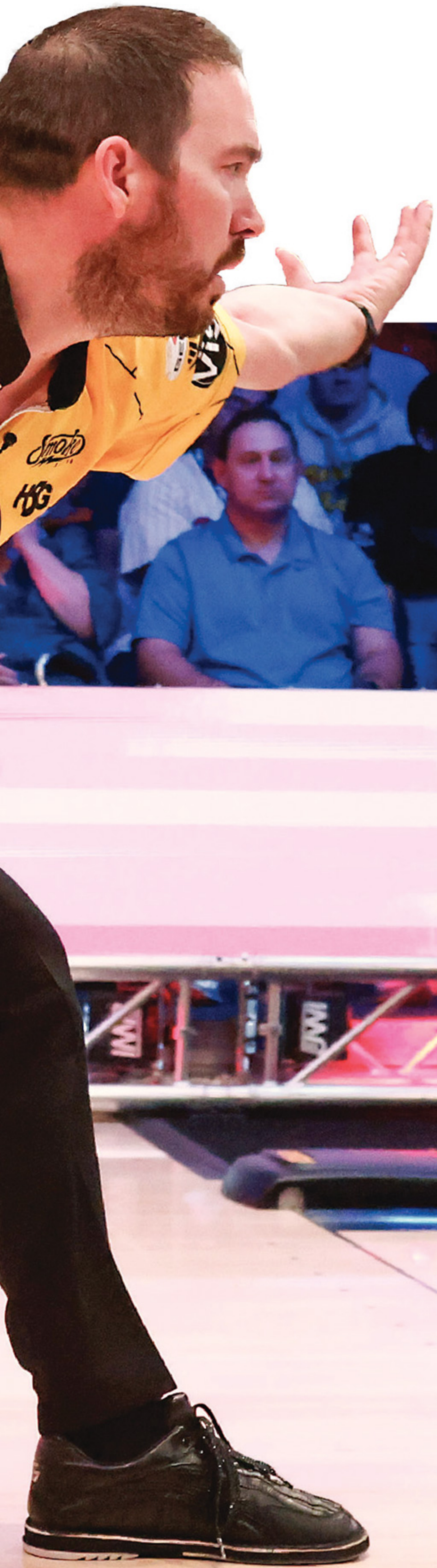
Today's tremendous variety of patterns on tour — from very short to very long and low volume to high volume — are intended by the PBA to present a fair challenge for all. Still, cycles during which certain styles dominated others have occurred routinely over the decades. Rash believes that straighter players had the advantage during his first five years on tour back in the mid-

aughts, but that big-hook players took hold of the tour thereafter. So far this season on the PBA Tour, I see patterns favoring the in-between type of player. Time will tell if this becomes the new trend for a while.

This is where we can begin to make connections between the philosophy the PBA applies to its lane patterns and where those patterns tend to push players as they develop over a given block. Since the PBA began designing and naming pat-

terns with Kegel, generally the intention has been that shorter-length patterns were set up to start playing the lane outside (boards 1 to 7), the medium patterns were set to play in the track area (boards 8 to 14), and the longer patterns were set up to play inside (15 board and in).

But there is one important factor that almost all the patterns have in common: a double blend in the oil. The first blend to consider involves the side-to-side application of the oil, which means that



**Straight Talk:**

*Sean Rash believes more players would benefit from keeping their angles straighter longer as patterns transition.*

there's more oil in the middle of the lane and less to the edge. On tour, that oil ratio fluctuates — depending on the pattern — from flatter to as much as to 3 to 1, meaning that there's three times as much oil in the middle of the lane compared to the outside near the gutter. The second blend is from the foul line down the lane to the end of the pattern. There is a lot more oil in the lay-down area of the lane compared to the end of the pattern. This down-lane blend is just

as important as the side-to-side blend because the heavier oil in the heads pushes the ball down the lane, keeping it from hooking early.

Then, as the oil lightens up, it slows down the ball so it can curve. On typical house shots, the side-to-side ratio is around 12 to 1, creating a very wide margin for error that disguises less than optimal shots. On tour, the blend is very gradual and requires a much better physical shot.

**Lane Surface**

Lane surface provides another window into understanding why shots can tend to move in quickly on tour. Synthetic lanes seem like they are flat, but there are a lot of subtle variances in the lane. We call that “topography,” and it is an element of our game that Kegel sought to harness when it developed a system for mapping a lane. They illuminated the gravitational forces of hills and valleys in the lane's surface and showed

the shape of it on a graph, revealing that a 17 thousandths variance can have an effect on a ball's performance.

### A Case in Point: Royal Pin Woodland (Formerly Woodland Bowl)

For Rash, the host center for this year's U.S. Open — Royal Pin Woodland (formerly Woodland Bowl) in Indianapolis — is a perfect example of this scenario in which too many players move too deep too soon. In Rash's experience bowling at that perennial PBA Tour host site, that tends to be the way the lanes develop there. A big reason for this is topography.

Woodland's synthetic lanes are installed over pre-existing wood lanes, as is the case in most older bowling centers. The panels are screwed down to the wood, which makes depressions. Another factor to consider is the lay-down area of the lane. Underneath the head panel — between the overlay and the wood — is a softer membrane. This membrane is there to absorb the impact of the ball hitting the lane and keep that panel from cracking. It does its job, sure, but because of all the balls landing mostly toward the center of the lane that pounding still crushes the wood and creates a topographical bowl into which you are rolling a ball. Essentially, the center of the lane becomes a valley between peaks to the outside of the lane. This forces bowlers to move in faster and loft the ball more so it doesn't hook early.

### Equipment

Also playing its part in this trend of players moving too deep too soon is the equipment they are using. Today's reactive-resin urethanes are designed to absorb oil — essentially erasing the oil — which forces the shot to move in. However, the trend now is that more traditional urethane balls are being used to be able to play straighter and to the outside for a longer period of time. These balls flare less and don't absorb the oil, so they create more carrydown, which helps the shot stand up longer.

### Front to Back or Side to Side: A False Choice

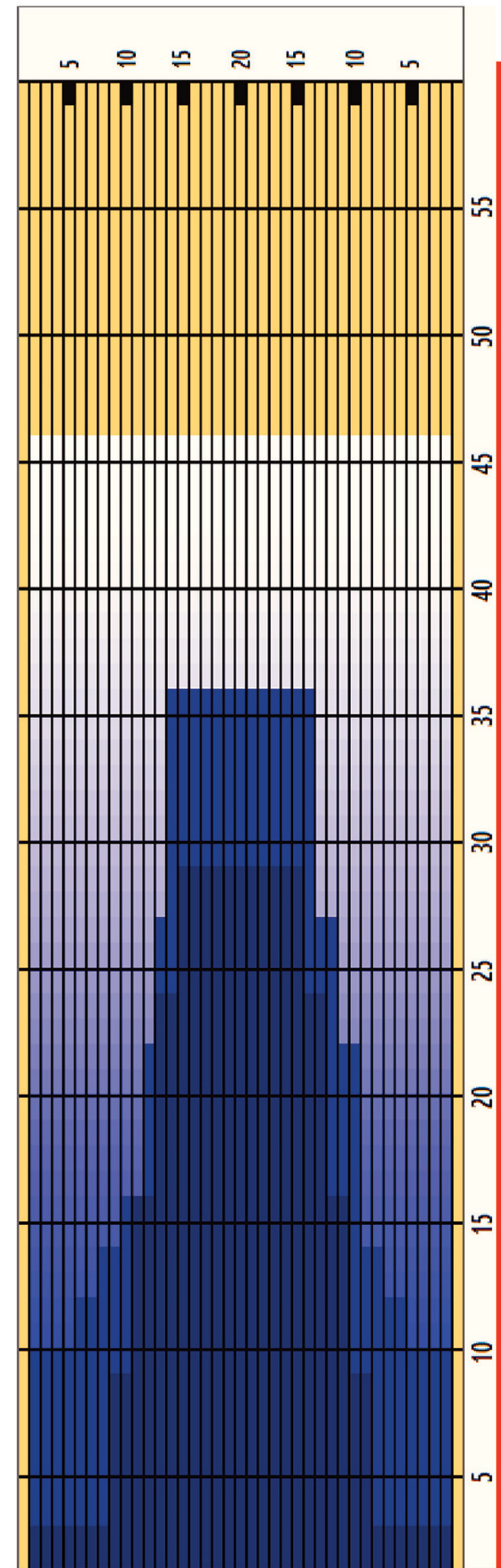
One common perception in today's game is this: tour players play the lanes from front to back, while league bowlers play the lanes from side to side.

A little explanation may be in order here: For the professional bowler, "front to back" means to roll a ball to a break point down the lane. "Side to side" means you can miss left or right and the ball is steered to the pocket by that 12 to 1 oil ratio on house shots.

But this presents a false choice. Really, every pattern is always played both ways. Most tour patterns have some blend — there is less oil toward the gutter, but considerably less difference than a house shot, and it takes a highly skilled player to read an oil-to-oil blend versus an oil-to-dry blend.

The key here is this: To create area on fresh oil, the ball has to follow along the ridge of most oil to the least oil as long as it can. This is especially true on sport shots. On lower blends, less hook allows a player to play along the blend better. The most blend in the oil is normally somewhere in the middle of the applied oil. For example, a 35-foot pattern, the middle of which is about 17 to 23 feet. This pattern will play outside. To play the blend correctly in such a scenario, you need straight launch angles and a ball and a release that don't generate a great amount of hook when the ball exits the pattern. Conversely, a very long pattern traditionally will be set up to play inside angles and accommodates more responsive balls and releases. This allows the player to have steeper launch angles because their lay-down point is left of the pocket for a right hander and right of it for a lefty.

That's where changing axis rotation, or changing balls, allows the player to achieve the correct angle from two completely different parts of the lane. For instance, let's say that, in order to play a straighter angle from the outside line, the player needs 5 degrees of entry angle into the pocket for the best carry. Now, if playing way inside requires the same 5-degree angle of entry for optimal carry,



PBA Johnny Petraglia Pattern

# HOW TO READ LANE GRAPHS, AND WHY

One handy tool in today's game is the lane graph — an example of which is this one depicting the PBA's Petraglia pattern — which shows you where the oil line is, and you have a variety of bowling balls that you can use to attack the pattern. It's imperative to learn to play along the oil line the correct way relative to your game.

One thing to look out for is the chance that a pattern often will stretch out/lengthen from play initially. Plastic spare balls, urethane with weak cores that don't flare much, and lower-rev players with softer speeds all contribute to the oil moving downlane.

When the midlane starts to hook a little early and you move in to find more oil, the pattern has been getting longer and the ball will slide longer. This can affect your carry because the ball enters the pocket at less of an angle. This is where additional adjustments are needed to get your carry back. They can include a ball change to a more responsive ball or an increase in axis rotation, either of which can help increase the angle at which the ball goes through the pins.

It is essential to pay attention to the way your ball goes through the pins both when you are striking and when you are not. Carry is a matter of the ball having the correct angle into the pocket and the deflection of the ball through the pins. Hitting the pocket is not a right to strike. There's always a reason you strike and don't strike. Watching every shot is the key to learning why you don't strike so that you can try to make an educated adjustment.

If you opt to not move in deep, then consider going with a ball that goes longer or using additional speed or loft to delay the hook so you can stay in the same area.

— Bill Spigner



**The Professor:**

*Norm Duke is a walking master class in breaking down patterns properly.*

you would need a different type of ball and more axis rotation to be able to achieve that.

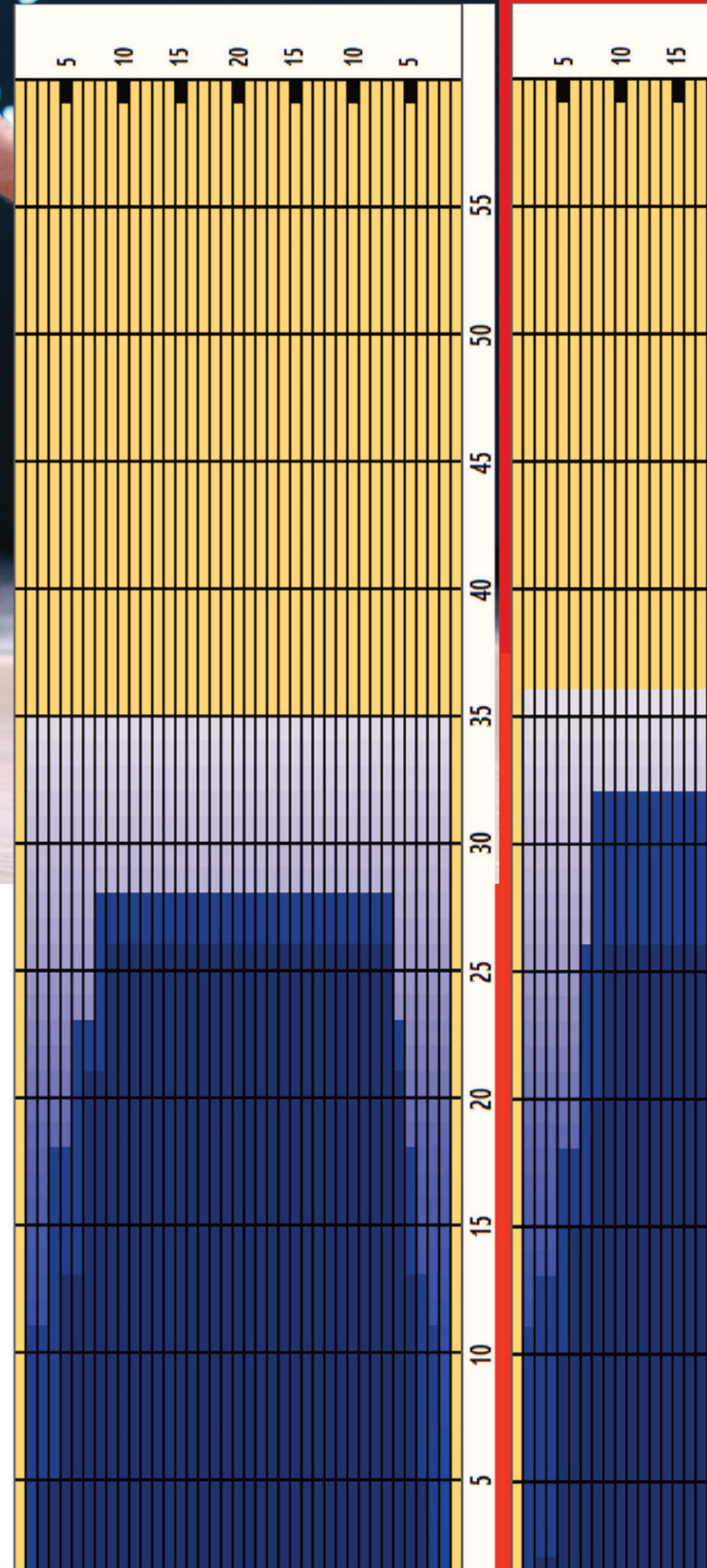
It takes years of experience to be able to understand what the pattern/angle really allows you to do, and to develop your personal tool box to play the variety of patterns.

Regardless of the pattern, you have to find the correct zone side-to-side to play the pattern on top of the blend. By doing this, you then can play the lane front-to-back by using a release, ball, speed or loft that allows you to project the ball down the lane from the right place. Too many bowlers don't think

about playing the front end of the lane; they think the break point is all that you need to focus on. But getting to the correct break point requires playing the lane side-to-side correctly, as that is the place where the pattern gives you the most miss room.

**How the Greats Manage Lane Transition**

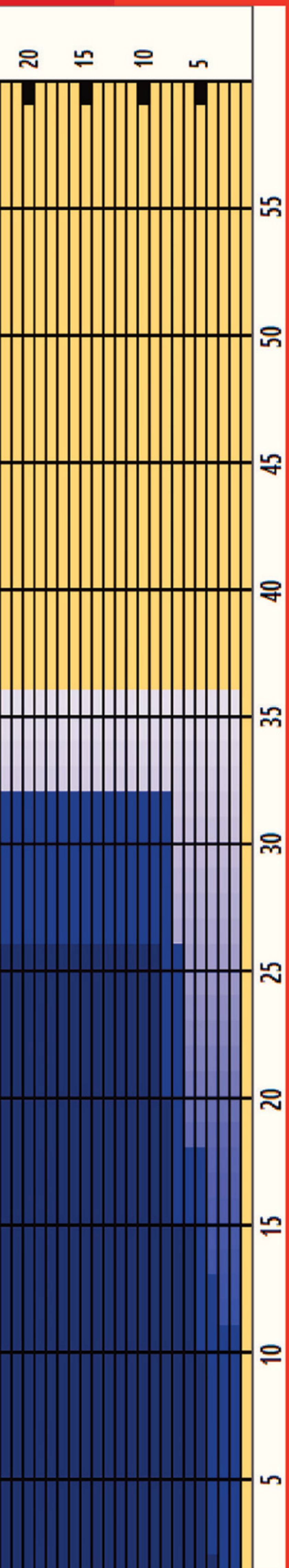
A great example of how long it takes to learn to play patterns the right way is Norm Duke. In 2019, at the age of 54, he won two dual-pattern PBA tour events in which the right lane had a totally different pattern than the left lane.



PBA Cheetah Pattern



# SEEING THE SHAPE OF A PATTERN



PBA Del Ballard Pattern

The key to playing patterns by looking at the graphs is the shape of the pattern. While the common thought here tends to be that pattern length determines the proper play area, in reality the determining factor is the pattern shape.

The key to playing these patterns on a fresh-oiled condition is to start out playing in that area with straighter launch angles so the ball can ride along the oil-to-oil line, which can produce a little miss area if you can get the ball rolling soon enough to read that part of the lane. Those who can't do that have to know that they can't; their best bet is to survive the early games of the block and wait for the pattern to change enough into a shape that favors them.

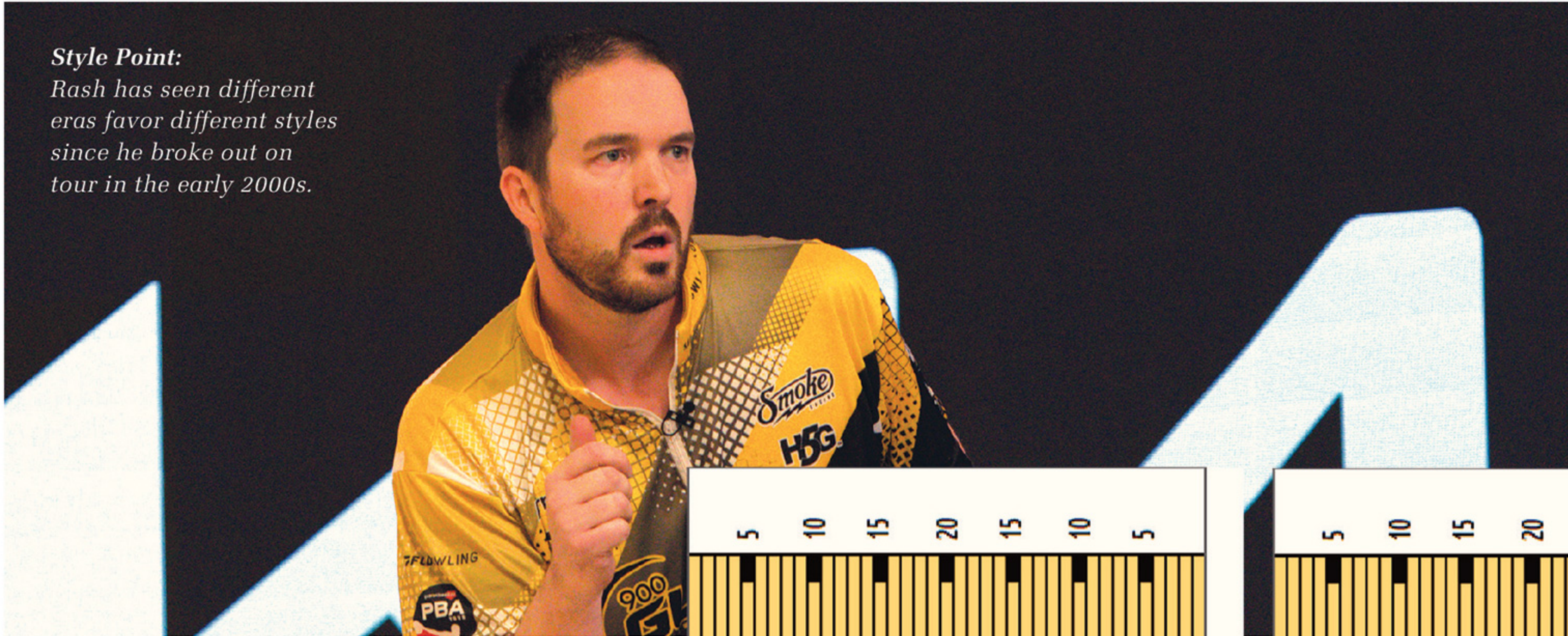
The Ballard pattern is designed to play out and be able to swing the ball a little. This was named after Del because of his infamous gutter ball on his final shot when he needed 7 to win and handed the title to a shocked Pete Weber when the shot played out on that TV show. This pattern shows that, on the fresh, it's best played between the 4 to 8 boards depending on the player, but all have to keep the ball straight relative to their abilities.

There are other patterns that the PBA designed to play out, like the Cheetah, which plays totally different than the Ballard. That pattern is designed to play up the 1 to 5 board with very fast speeds, like a Cheetah. On the Ballard pattern, you can roll the ball with medium speed like Del did. On the Cheetah, you have to throw rockets up the gutter, which favors players like Eugene McCune and very straight players like Norm Duke.

— Bill Spigner

**Style Point:**

*Rash has seen different eras favor different styles since he broke out on tour in the early 2000s.*

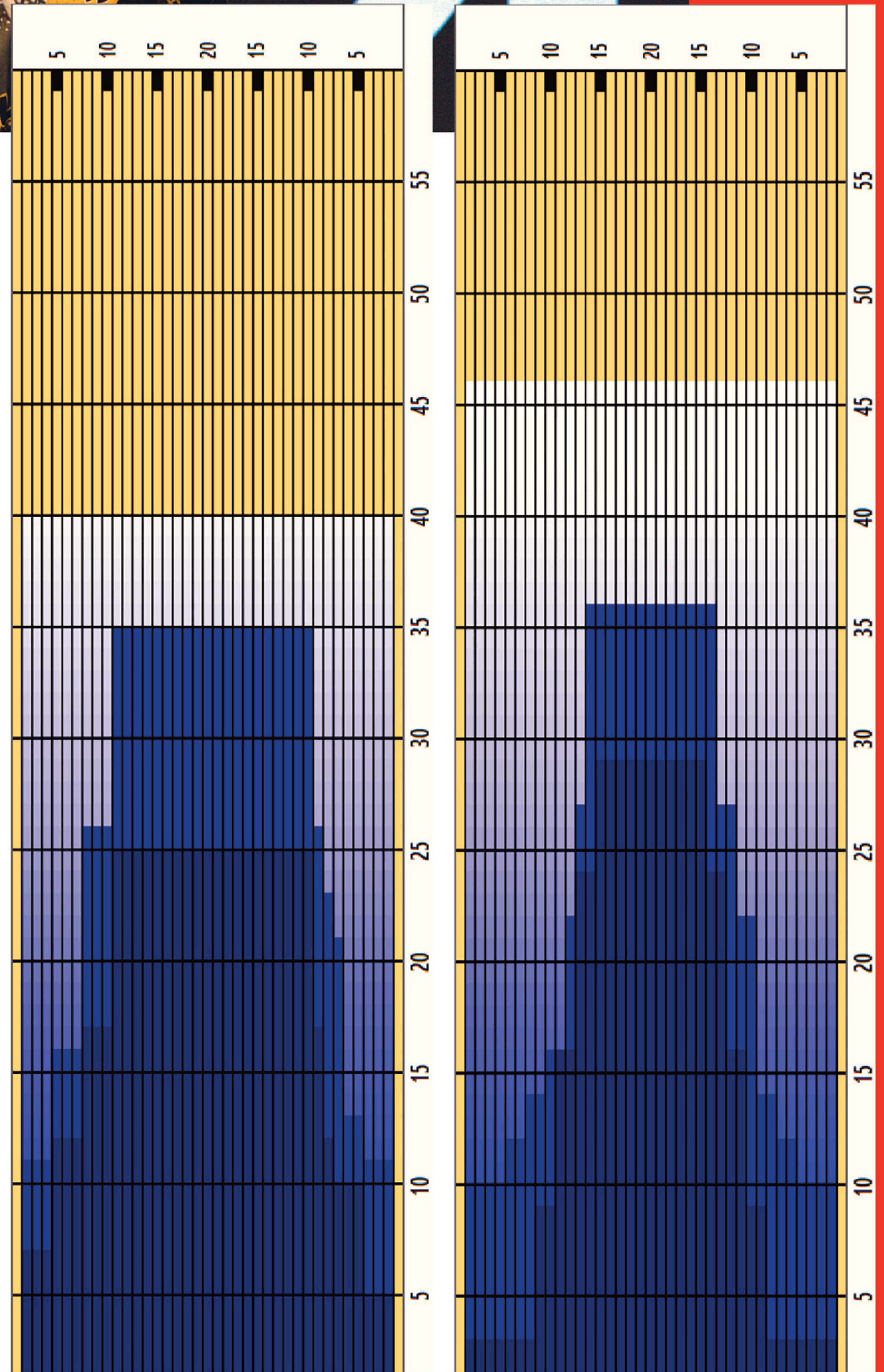


His years of experience and his ability to dramatically change how he rolls the ball very quickly, with total control over what he was doing, is the reason he beat the kids. He was able to play both patterns from basically the same area, but with different deliveries and balls. Importantly, he played the mid-lane correctly by using finesse and brain power, not physically overpowering a pattern.

Many players today have learned from those final two of Duke's 40 overall PBA Tour titles, and consequently they are seeing the patterns more clearly.

Anthony Simonsen, one of the game's most versatile competitors, often plays the lanes straight at the start of a round. Then, as the balls going down the lane erase the oil and move it downlane, he does move in and hook it more, but he doesn't overhook it.

Rash, for his part, admits that he too was a big-hook player when he first came out on tour, and he too was susceptible to moving in deep sooner than necessary. It wasn't until an injury forced him to lower his rev rate that he learned to play the patterns better on fresh oil. He did this by going straighter and staying right longer, working off his own ball track instead of following others moving in. This is antithetical to the comfort zones of most players, as they will seek a shape deep inside rather than reaching deeper into their physical tool kits. In this case as in most things in life, there may well be some benefit to busting out of your comfort zone. ■



PBA Don Johnson Pattern

PBA Johnny Petraglia Pattern

# PLAYING

## THE DON JOHNSON & JOHNNY PETRAGLIA

# PATTERNS

The Don Johnson pattern is one that's attacked by playing around the second arrow to start. Straighter players play down and in. The players that hook the ball have to play straighter angles with balls that are very stable, rolling front to back. Lots of urethane is used, and when the volume of oil is high enough then solid asymmetrical core balls come into play. The asyms like to roll forward when they start to hook much more than symmetrical core balls, so they control the lane better front to back because they get into a forward roll faster than symmetrical-core balls.

This pattern was named after the great Don Johnson because he was playing the track area between the second and third arrow going very straight when he bowled the most famous 299 in PBA history, leaving a ringing 10 and collapsing on the floor.

The Johnny Petraglia pattern is designed to play the inside part of the lane. This pattern is designed for both right and left handers to play inside right away. The biggest blend in the oil is around the third arrow.

You might wonder why it was named after a left hander. Bowlers think that right handers play inside more while lefties play out. Petraglia bowled 300 on national TV in the stepladder finals of the 1994 PBA National Championships at Imperial Lanes in Toledo, Ohio, playing around the fourth arrow. He received a \$100,000 bonus for that 300.

The interesting thing was that he did this on an asymmetrical pattern that had the left handers playing the inside line and the right handers playing straight up the second arrow. This is a great game/show to watch on YouTube.

— Bill Spigner