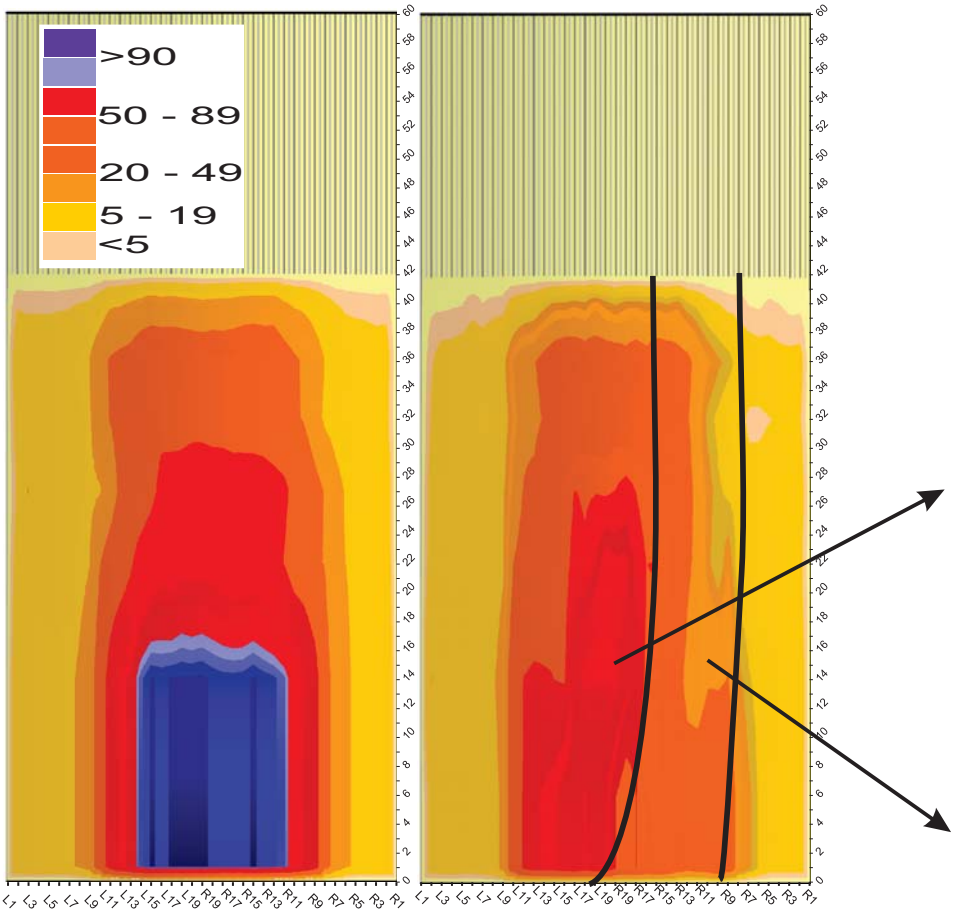
Lane Conditions ‘101' Part 4.
Why “House Patterns” are bad for bowling.

There is no doubt that high ratio patterns (> 8:1) have artificially inflated league averages world-wide. There are several side effects caused by the continual use of these patterns that will affect bowling as a sport for many years.
Some of these effects are short term and at least one is long term. I will only deal with the technical aspects of high ratio patterns here. The other issues that they create are matters for equally serious discussion elsewhere.

Long term: Shorter lifespan for synthetic lanes.

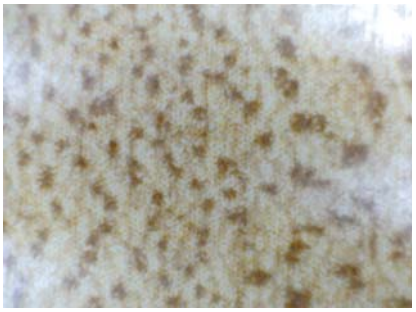
In Part 1 we learned that synthetic lanes have a textured surface. This is to duplicate the grain of the timber that was originally used to construct lanes. Timber lanes were sanded and re-lacquered to refresh the grain. Lane oil is applied to protect the surface from excessive wear. Synthetic lanes can not be refreshed in the same way, so the job that the oil film has to do becomes even more important.

In Part 2 we looked at the thickness of oil films and the minimum amount of oil needed to protect the lane surface. Most patterns in common use apply less than 5 units of oil to the outer (1-5) boards of the lane and only 10-15 units to the next 5 boards (6-10). This thin film of oil is quickly stripped away, especially by the very abrasive modern ‘particle’ and reactive resin cover-stock bowling balls, exposing the texture layer to excessive wear. This wear is accelerated by the fact that high ratio patterns tend to force everyone to use the same ‘line’ into the pocket. So, 95% of the wear is occurring on less than 15% of the lane surface. When the texture layer is mostly worn away that part of the lane will not ‘hold’ oil. Either the pattern will break down very quickly, or the oil will not form a film at all. That will be the end of any ‘shot’ on that part of the lane.




New HPL - for comparison


HPL 12 years old - 20 board area fairly good condition


HPL 12 years old - 10 board area showing significant wear

Lane tape graphs showing the depletion of a 12:1 pattern after 15 games. The high magnification photos of the lane surface on the right show a new HPL panel and two different parts of a 12 year old lane which has significant wear on the outsides..

Short Term: Buff brush degradation.

In Part 3 we looked at buff brushes and how their bristles degrade with use. The reduced amount of oil applied to the edges of a lane when using high ratio patterns causes the bristles at the outer ends of the brush to degrade faster than the bristles in the middle of the brush. This can even be seen on brushes that are only a few months old! The worn bristles tend to 'hold' the oil, so some of the oil is applied further down the lane than what was intended and the rest is thrown around inside the lane machine.

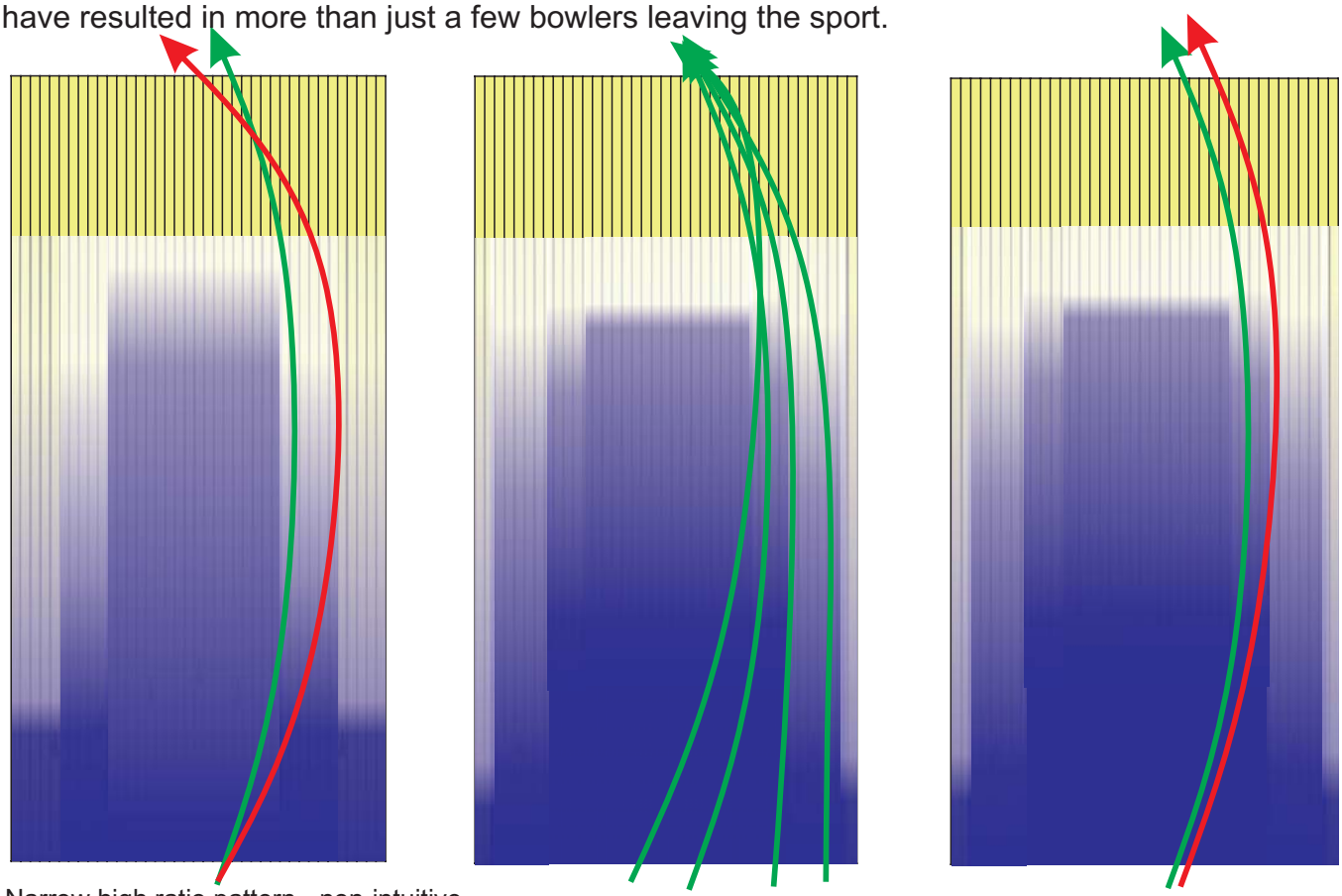
A pattern that starts out at 12:1 can very soon become 13:1, 14:1 or even greater. The oil that gets moved further down the lane can show up as 'hang points' or an 'out-of-bounds' area. The usual response is to decrease the oil being applied to the lane edges even further. I have seen patterns with NO oil at all applied to the edges of the lanes. This increases the wear to ridiculous levels. In the centres where this has already happened, it's too late and you can only really use the house pattern that created the problem in the first place. Any oil applied to the worn areas produces very erratic ball motion.

Solutions:

Ideally a centre should use 2 or 3 different patterns during any given week. One of these should be a 'social' play pattern - a flatter 15-16mL buffed out to about 30 feet. Casual bowlers using house balls will be better able to pick up spares on this type of pattern, resulting in higher scores. They are then more likely to return for more games. The reduced amount of oil will also result in less 'ball calls' and sliding pins.

Plastic balls tend to 'push' the heavy oil in the middle of high ratio house patterns down onto the 'back-ends' and the pin-decks. A short, lower ratio pattern that uses less oil is reasonably economical and is infinitely preferable to not washing and oiling at all. Social play tends to increase the amount of dirt on a lane and so it continues to be important to wash and re-oil lanes at least once a day. Not using the lane machine on a 'social' only day is false economy.

Leagues should be encouraged to bowl on a variety of patterns depending on the skill level of the bowlers in each particular league. Patterns around 8:1 allow for intuitive adjustment so lower average bowlers can improve their skills (and scores). Tournaments should never be bowled on high ratio patterns no matter how big the temptation is to create a 'high scoring' event. 'Easy' lane conditions have resulted in more than just a few bowlers leaving the sport.



Narrow high ratio pattern - non-intuitive miss right, hooks further left.

Wider, flatter pattern allows a variety of shots and intuitive adjustment. Miss right, miss target to the right