better than a layup

Challenging Basketball's Conventional Wisdom

The Basket is True North

Basketball's Third Law

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Author's Note

When I launched **better than a layup** in 2014, I outlined ten laws or principles that undergird the game and define its nature. Since then, I've presented detailed essays on the first two.

Time Trumps Territory is appropriately basketball's first law for it is the cornerstone upon which the remaining laws are built. We learned that basketball is fundamentally a game governed by time, not by the space in which it takes place. We play *within* the dimensions of the court and are constrained by its boundaries, but we don't *capture territory*. Instead, we *pass through it* and must assault the basket according to timelines established by various clocks: the game clock, the shot clock, and the various "countdowns" employed by the officials to govern different situations of play – inbounding the ball, crossing the half court line, etc. Additionally, we must contend with other forms of time that are not governed by an actual clock: *tempo* or pace, *reaction time* or long it takes for one player to react to the movement another player, and *rhythm* or how well the moving parts of the game are "timed" or in sync with one another.

There are no static lines or fronts in basketball. It's not a stop-start-stop game during which the offense and defense align across from one another, snap the ball to initiate play, then, do it all over again in a contest to seize territory. Instead, the action is continuous and fluid, the teams seesawing back and forth between offense and defense, the position of the players constantly shifting in relationship to the ball, the basket, and the movement of one another.

And, it is in the midst of that continuous and fluid action that we discovered basketball's second law, *Space Shapes Time*. One's ever-shifting position on the floor in relationship to the ball, the basket, and the other players *shapes* time, either *shrinking* or *stretching* it. Identifying and reacting properly to the angular and spatial relationships between these elements minimizes the disadvantages of the slower players and maximizes the opportunities of the quicker ones. Spacing between players creates avenues to the basket or chokes them off.

In a game of time, characterized by ever changing spatial relationships, coaches and players need a set of navigation tools to help them recognize and make choices quickly. What are the principles by which you read or "see" the game and its myriad of choices? How does one plot the game's "latitudes and longitudes" accurately? How does one develop "court sense"?

Understanding basketball's third law – **The Basket is True North** – provides the navigation tools needed to answer these questions.

-- Mark S. Seeberg
March 8, 2019

Introduction

Basketball's geographic features are well-defined, easily recognizable to fans and players alike. Most prominent are the baskets located at each end of the floor. Certainly, other court elements are apparent – the free throw lines and lane markings that create the "paint," the midcourt line that divides the court into two equal parts, each 50' by 47' in width and length, the 3-point arc, and so forth – but the baskets are the focal point of the game. After all, the point of the game is to "make more baskets" than your opponent.

On offense, you assault the basket looking to advance a player to a position where he is a credible offensive threat… where he has enough time and space to shoot the ball and score points. On defense, you place yourself between your opponent and the basket hoping to deny him the space and position needed to shoot the ball and score points.

In a game of constant transition in which the teams swing back and forth from offense to defense and back to offense, the two baskets are *the fixed points around which the game unfolds.* To state the obvious, the position of the baskets is fixed and unchanging while the position of the players is relative and fluid as they adjust to one another and to the movement of the ball.

Just as ancient mariners relied on the North Star to help orient them on the open sea, players plot their movement on the court in relationship to the basket. Because the basket is static and unmoving, it tells you "where you are" and dictates the relative strength or weakness of your position in relationship to the moving ball and players around you. Armed with this knowledge you adjust your position accordingly.

Experienced players do this quickly and intuitively because they have developed "court sense" – the ability to *see the floor*, interpreting the movement of players and the ball in relationship to the basket, and re-positioning themselves to gain an advantage or mask a weakness.

This acquired skill is more easily explained by delving deeper into court geography and exploring its impact on defensive positioning and tactics.

Terminology

Let's begin by clarifying three pairs of basic terms often confused by young coaches and t.v. commentators: *strong side* and *weak side*, *ball side* and *help side*, *onside* and *offside*.

Picture a rope or cable strung down the center of court connecting the midpoint of each rim to one another. If the baskets represent the game's "true north," then this imaginary center line, often called the *rim line*, is the game's "prime meridian" – the invisible longitude that is the starting point for understanding and using court geography to one's advantage.
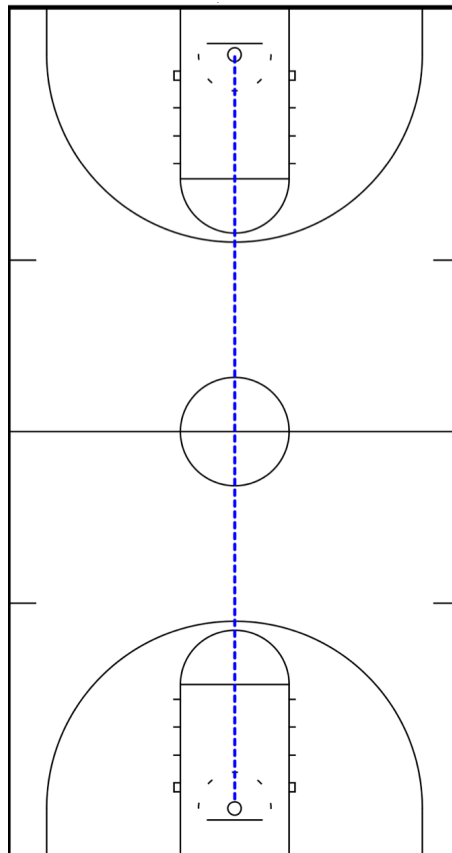
The terms *strong side* and *weak side* refer, not to the position of the ball as they did in an earlier era, but to the relative strength or weakness of the offensive alignment as determined by the number of players to the right or left of the rim line.

In the following diagram, there are four offensive players aligned to the right of the line with the remaining attacker to the left. So, the right side of the formation is the offense's "strong side" and the left is the "weak side." It doesn't matter where the ball is. The number of offensive players positioned on each side of the line determine the relative strength or weakness of the offensive formation.
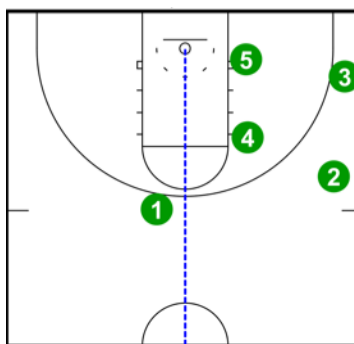
Here's another example, this time featuring three attackers to the left of the rim line and two to the right. The left side of the formation is now the strong side because there are more offensive players on that side of the court.
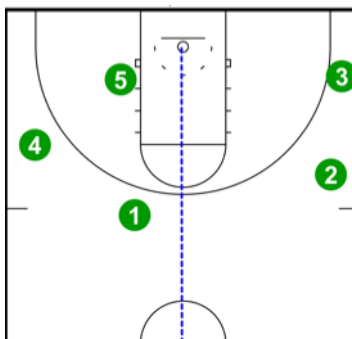

Now, let's add a ball to mix.

Whoever has the ball determines the *ball side* of the court… what some coaches today still call the *onside* because defenders on that side use "on the ball" defensive tactics to contest shots and block penetration. The two terms are interchangeable and have absolutely nothing to do with the strong or weak side of the offensive alignment.

In the illustration below, #2 has the ball so his position on the right side of the floor determines the *ball side.* By coincidence, it also happens to be the strong side of the offensive formation because there are more attackers on that side of the floor than on the left. But, again, that's a matter of coincidence.
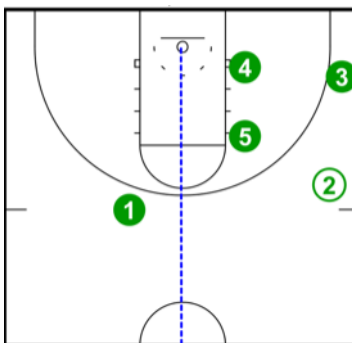
If #2 passes the ball across rim line to #1, then the *ball side* shifts from right to left, but the strong side remains where it is because no one moved. There are still more attackers to the right than to the left.
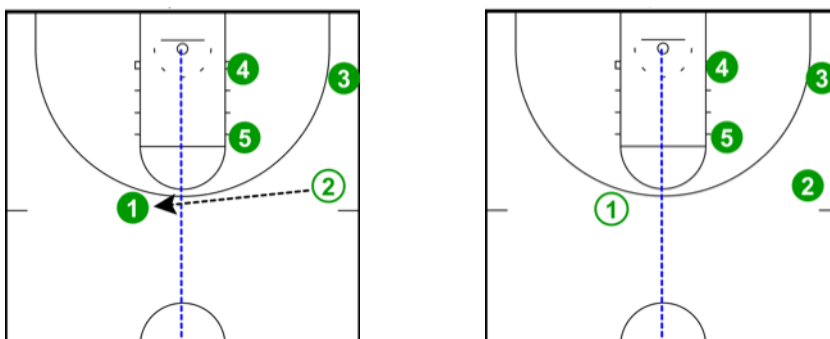
While *onside* or *ball side* refer to the side of the floor where the ball is, the terms *offside* or *help side* represent the exact opposite. The *offside* is the area of the court *off* or *away* from the ball… the side of the floor where defenders will use "off the ball" positioning tactics *to help* their teammates on the ball side.

Since the early 1970s when Bobby Knight's defensive strategies became the rage, coaches have generally favored the use of the terms *ball side* and *help sid*e because they paint a more vivid picture of court geography and the optimal positions for defending the basket. Knight believed that from a teaching perspective these terms shifted the emphasis from guarding a specific man or a specific area to "stopping the ball," thus strengthening the team's understanding that this objective required *all five defenders* operating in unison. Ball side defenders pressured the ball handler, denying him an easy path to the basket, making a penetrating pass to the baseline or pivot, or maneuvering for an open shot. Help side defenders moved away from their own defensive assignments toward the rim line where they were in position to help block penetration, yet could recover to their own assignments when the ball moved to their side of the court.

The Numbers Advantage

Playing defense in this manner creates a *numbers advantage* for the defense because most offensive maneuvers involve only a few players. Even in a regimented "pattern" offense requiring the coordinated movement of all five players, the final assault on the basket usually involves one, two, or at most, three men because any more than that creates congestion. It doesn't make sense to tightly guard the remaining offensive players not directly involved in the actual thrust on the basket. That frees their defenders to sag or slide toward the ball side, creating a 5 on 2 or 5 on 3 advantage for the defense.

Whether the defense is zone, man, or some combination of the two, when the ball moves to one side of the floor, it generates help from the other side of the floor. In effect, the moving ball "tugs" the defenders in the same direction. Consider the following illustrations.
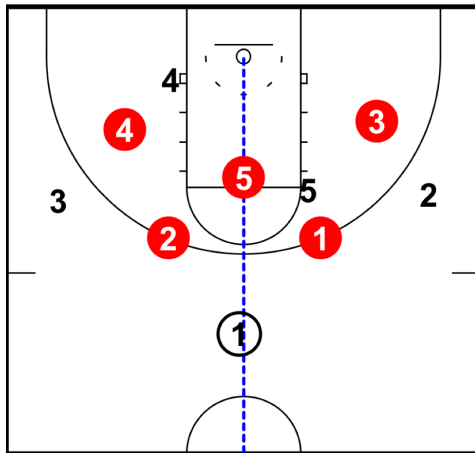

Imagine a simple 2-3 zone, the offense aligned in a 1-3-1 formation to attack the gaps of the defense. The ball is at the point, effectively right on top of our imaginary center line.
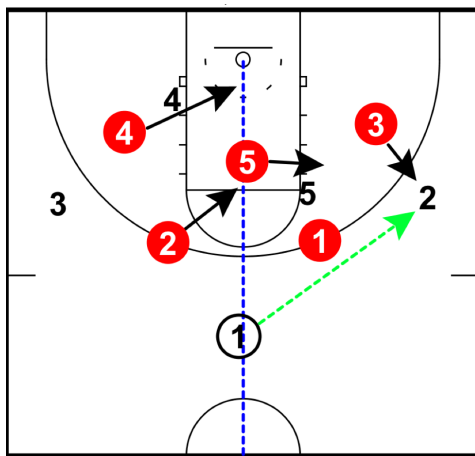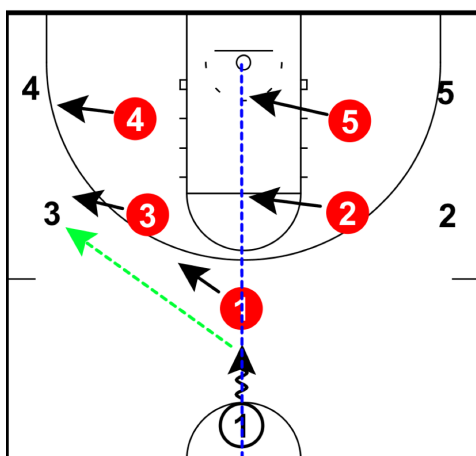

As the ball is passed from the point to the right-side wing, the defenders step in the direction of the pass. Defenders #2 and #4 form the *help side* of the defense while teammates #1, 3, and 5 comprise the *ball side*.
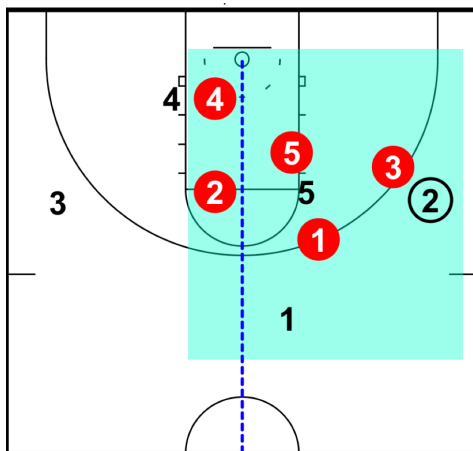

Using the invisible rim line as their guide, the five defenders have repositioned themselves to create a 5 on 3 numbers advantage for the defense.
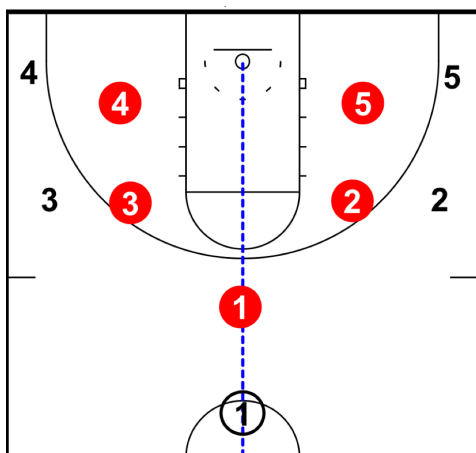
In this scenario, we find a man-to-man defense, each defender matched to a specific attacker. The offense is aligned in a spread formation, occupying much of the front court area. With the ball at point, no help side has been declared so the defense is forced to contest a relatively large area.

But once the ball is passed from the point to the left wing, the *ball side* and *help side* are defined. The defenders on the ball side close quickly on their assignments to contest any penetration while defenders #2 and #5 move toward the rim line to provide help.
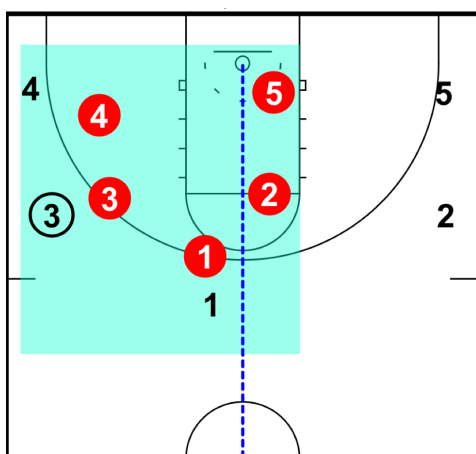
Once again, by moving in the direction of the ball in relationship to the imaginary rim line, the defenders create a 5 to 3 numbers advantage for the defense

Here's another example, this time featuring a 5 on 2 advantage.

The numbers advantage, of course, is temporary as the ball and offensive players shift position in relationship to one another and the basket, re-defining the ball side and help side in the process, and forcing the defenders to adjust their own positions accordingly.

As suggested above, the defense is most vulnerable when the ball is at the point because, *in that moment*, there is no distinction between ball side and help side. With the ball in the center of the floor, the defenders are forced to guard a wider area of the floor.
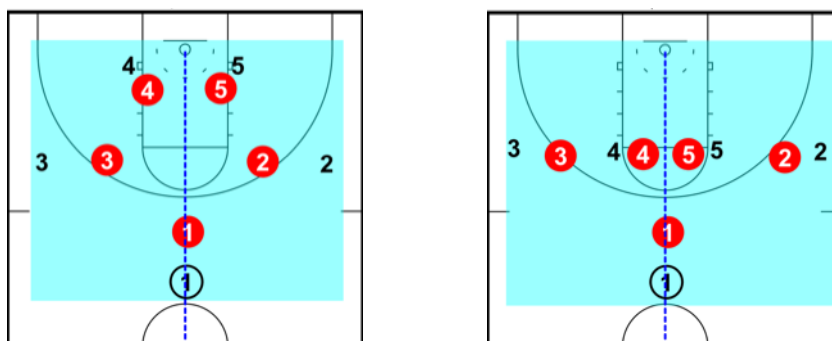
And if the offensive alignment is *balanced* – each side of the formation mirroring the other as depicted in the illustrations above – the defenders are not only forced to guard a wider area but to give *equal attention* to each attacker. To be sure, they will be wary of particular players, those who physical prowess and talent demand it, but all things being equal, when the ball is centered and the offensive formation balanced, the defense is most vulnerable.

This is why defenders in a contemporary man-to-man defense will attempt to *push* the ball off the point to one side of the court or the other, and will work very hard to prevent a return pass to the point. When facing a two-guard front, they may permit a lateral pass from one guard to the other because the ball remains on the perimeter and the defense merely slides with the movement of the ball. But against a one-guard front, if the ball is returned to the point, the distinction between ball

side and help side momentarily disappears, and the defense is exposed to a quick, penetrating *second* pass into the heart of the defense with little or no time to react.
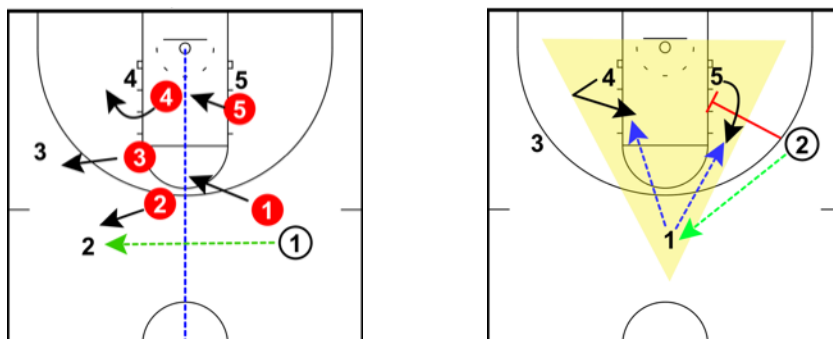
More on this later when we explore offensive positioning in *Keep It Binary, Stupid: Basketball's Fourth Law.* For now, let's continue our investigation of court geography and its influence on defensive strategy.

Developing Court Sense

As the ball moves to one side of the floor or the other, it delineates the ball and help sides of the defense, triggering a range of defensive positioning options. Generally, ball side defenders close on the ball handler and contest opponents positioned *one pass away*, while help side defenders step in the direction of the rim line and down toward the basket, effectively zoning off opponents located *two passes away*.

Beyond these general rules, how far and aggressively a defender moves toward the ball and how he positions himself once he arrives depends on a number of factors, among them:

- How big, strong, and quick is my opponent relative to my size, strength, and quickness?

- Is the ball handler an immediate shot or drive threat, or more likely looking to pass or to set up a teammate? Is he a skillful driver, shooter, passer? Does he tend to create his own shots or assist others?

- How far from the ball and the basket is my opponent? Is he the ball handler or is he one pass or two passes away?

- Is the ball handler above or below the free throw line extended?

- What is our team's defensive system and underlying philosophy? What role am I expected to play within our system?

The answers to the first two questions are wholly dependent upon the actual players on the floor in any given game. There's not much we can say about them here, but the context set by the answers to

the last three questions frames how a team will respond to the flesh and blood realities during an actual game.

Defensive system and underlying philosophy?

It's relatively easy to plot today's various defensive systems along a continuum based on the amount pressure they attempt to exert on the offense. At one end, the coaches and systems that focus on *denial*; on the other, those who favor *containment*.

The denial community uses pressure to force the ball away from the basket, to disrupt offensive timing, to exhaust and ultimately intimidate their opponents. The containment community takes a less risky approach, employing a variety of zone, matching zone, and or gap man defenses to rigorously seal the interior while permitting the offense greater freedom of movement on the perimeter. Both styles feature pressure on the ball to prevent rhythmic shots and use various forms of help and rotation to block penetration.

Regardless their position on this continuum, all defensive systems are anchored in a general concept called *ball-you-man* and more specifically in how a team chooses to apply a positioning tactic called *on the line, up the line*.

Here's how it works.

If you're guarding the ball handler, then you position yourself between him and the basket. After all, he's got the ball and is an immediate threat to the basket. But if you're guarding a man *away from the ball*, you must assume a *ball-you-man* position. That is, you must be between the ball and your man, and in a stance or defensive posture that permits you to see both the man you're guarding and the ball handler *simultaneously*. That's the only way you can react to either man's movement and adjust your position accordingly. This is true even when playing a zone defense that matches you to an area but requires you to remain vigilant of opponents entering or leaving your area.

In the following illustrations, instead of aligning between the ball and the man he is guarding, defender #3 has chosen a spot *below his man*. From this defensive position only three things can happen and all of them are bad:
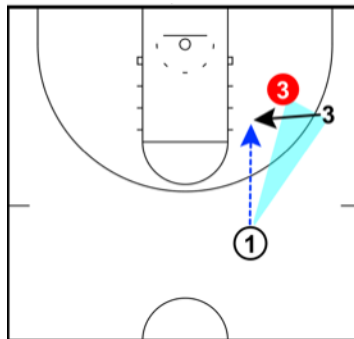
- concede an easy pass that leads to an uncontested "catch and shoot";
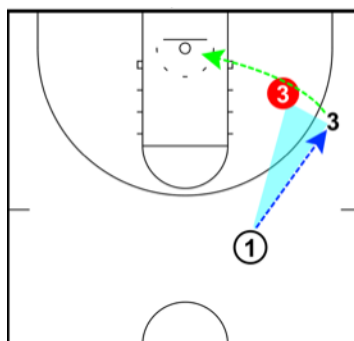
• lunge at the pass and miss it, creating an open path for his man to drive the baseline;
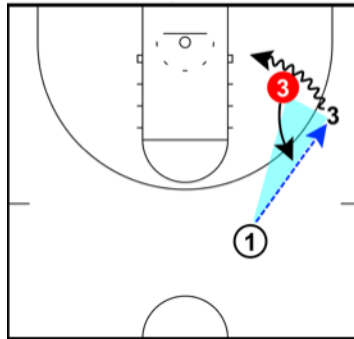
• watch helplessly as his man cuts to the open gap in front of him to catch a pass that immediately penetrates the heart of the defense.

The only way to prevent these outcomes is for #3 to move *higher* or *above* his man to a spot that is both "on the line" and "up the line." The *line* in this case is the path the ball will take if passed from the guard to the forward.
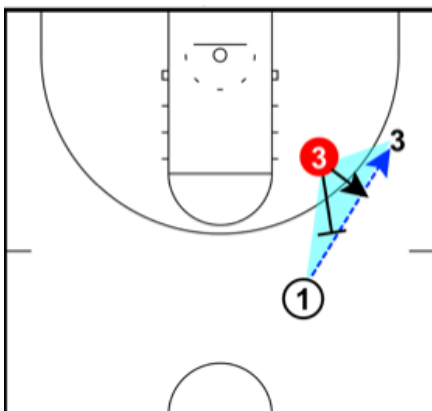
Since defender #3 is guarding a man *one pass away* from the ball handler – there are no other offensive players between him and the ball – he stations himself *on the line*, in the passing lane or close enough to it to threaten a pass to his man, and *up the line*, close enough to the ball handler to prevent a dribble drive to the basket but far enough away to recover to his own man if the ball is passed.

Coaches often depict this relationship in the shape of a flat triangle like the one you see in the illustration. From this position, #3 can see both his man and the ball handler and react in either direction.

Determining the optimal location for an off-the-ball defender like #3 is a matter of reaction time and

the relative quickness of the players involved. To observe the *on the line* principle, an extremely quick defender may literally place one of his legs and an extended arm in the passing lane while a slower teammate may only extend an arm in the direction of the passing lane. The quicker defender knows he can recover while the slower one can't take the risk.

Generally, *up the line* positioning calls for a defender to align one-third to half the distance up the imaginary line. This range insures that the defender is close enough to the ball handler to deny dribble penetration while remaining close enough to stop his own man if the ball is passed to him. If the ball handler gets by his defender and you can't get there in time to help, you're probably not far enough up the line. By the same token, if the ball is passed to your man and you can't get back in time to contest him, you're probably too far up the line.

Here are two more examples of the *on the line, up the line* principle employed when one or more off-ball defenders are one pass away.

In the first illustration, defenders #1 and 4 are on the ball side and one pass away. In other words, there are no other offensive players between them and the ball. To cover their own assignments as well as to help defender #3 prevent a dribble drive, both men are in an *on the line, up the line* position. Note also that defenders #5 and 2 are on the help side of the defense and have stepped toward the invisible rim line, creating a numbers advantage for the defense.

In second illustration, we again see two defenders one pass away, but while #4 is on the ball side, his teammate, #1, is on the help side of the rim line. Nevertheless, he follows the same *on the line, up the line* positioning rule as his teammate with one modification: because the passing lane is very long he can move farther up the line and away from his man. He's got more reaction time.

But what happens when defenders are *two or more passes away* from the ball handler?

Look again at the previous illustration. Short of a "skip" pass to #2's man or a lob pass for a dunk to #5's man on the low post – both extremely difficult to execute if the ball handler is being pressured – there's no way to get the ball to them with a single pass. Either they have to move toward ball searching for an angle to get in front of their defenders or they have to wait for the ball to be reversed to their side of the floor, a maneuver that will take two or more passes to complete.

In that circumstance, defenders #2 and 5 use a different set of positioning rules than their teammates who are only one pass away from the ball handler.

To explain, we need to add three more imaginary lines to the court. First, with our "prime meridian" – the invisible center or **rim line** – already in place, we add a horizontal line called the **free throw line extended**. Next, we insert the **lane lines**, two parallel, vertical lines that mirror and extend the lane or paint area markings
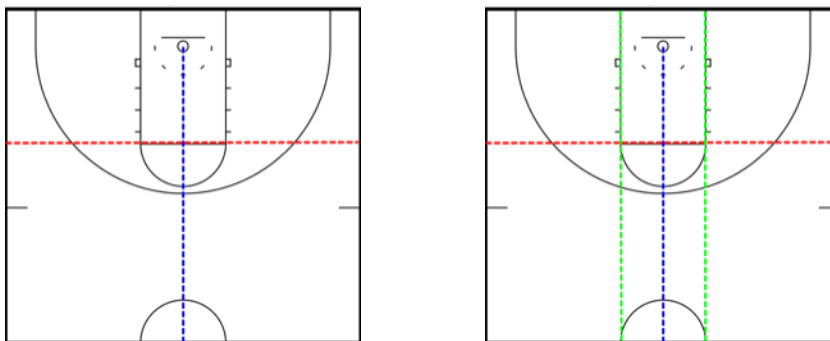
That completes our quasi-topographical depiction of the front court. Now, the rules:

When guarding players on the help side, two or more passes away from a ball handler positioned **above** the free throw line extended, the help side defenders move to the **nearest** lane line. In other words, they move toward the rim line but not any closer than the nearest lane line.
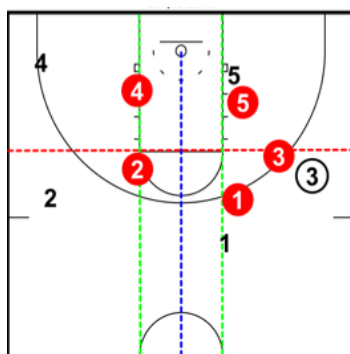
And, if the ball is *at* or *below* the free throw line extended? They move all the way to the rim line.
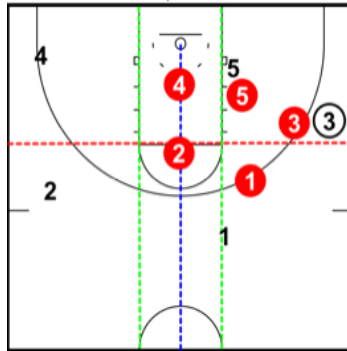
What happens when the ball is at the point?

The rules break down. As noted earlier, when the ball is centered, the distinction between help side and ball side disappears and with it the notion of one or two passes away. In the following illustration, it *appears* that defenders #4 and 5 are guarding men two passes away, but with the ball at point, this is an illusion.
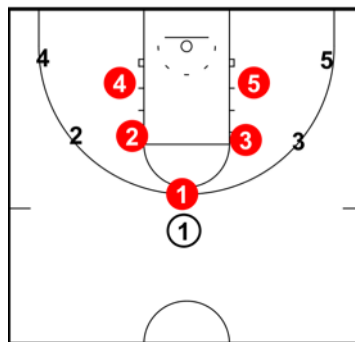
If defender #2's man simply steps toward the sideline while #4's player cuts toward the lane, both defenders end up guarding players who are one pass away and must be defended using the *on the line, up the line* principle.
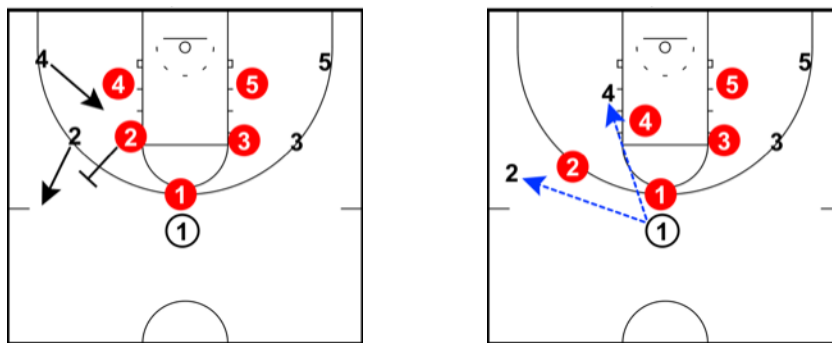
Defensive Strategy & Tactics

The lesson here is that the spatial relationships between the ball, players, and basket are in constant flux and that what is easily illustrated on paper does not adequately capture what takes place on the floor, often in an extremely fast and cluttered fashion.

Court geography and the rules governing basic defensive positioning are learned over time through constant drilling and live play. Eventually, the better players develop "court sense" – the ability to *see the floor*, interpreting the movement of players and the ball in relationship to the basket, the rim and lane lines, the free throw line extended, and how to position themselves within these spatial coordinates to gain an advantage or mask a weakness… and to do so quickly and instinctively.

Then, with more experience, they learn to adapt these principles to fit their particular coach's defensive philosophy and style of play.

For example, if you were freshman playing for Wisconsin-Green Bay's legendary Dick Bennett during the 1990-91 NCAA tournament, you were schooled in an intense, disruptive man defense that picked up the ball handler as soon as he passed midcourt and aggressively pushed him to one side of the floor and down the sideline to the baseline where the court's natural boundaries penned him in. Once there, Bennett's off-ball defenders choked off all the passing lanes with unrelenting pressure and refused to let the ball out. Bennett's system of denial defense was so successful that his film *Pressure Defense: A System* was one of the biggest selling instructional tapes of the era and he was widely known in the coaching fraternity as the "professor of defense."

But four years later, as a senior veteran of the squad, you likely walked into the first team meeting of the season to hear Bennett preach heresy: *"Gentlemen, this season we're going to take a whole new approach to the game. As you know, I've always believed in hard-nose, pressure defense but I've come to believe that our efforts to attack opponents in this manner too often puts us at a disadvantage. We're simply outgunned by quicker, stronger, and more athletic opponents. Our strategy of overplaying and denying the perimeter as well as the interior is too risky. So, this season we're going to try something different."*

Of course, I have no idea what Bennett actually said to his team as the 1993-94 season began but his shift from a defense focused on unrelenting pressure and denial to one based on containment was

dramatically successful and its impact far reaching. It led to a second best-selling instructional tape in 2005 entitled *The Pack-Line Pressure Defense* and today its proponents range from Sean Miller at Arizona, to Louisville's Chris Mack, to Ben Jacobson at Northern Iowa, and most prominently, to Bennett's son, Tony, at the University of Virginia.

In his new defense, Bennett still wanted pressure but modified how he applied it. In the Pack-Line, one man aggressively pressures the ball while his four teammates stay in help position within an imaginary 16' arc around the basket. Instead of channeling a dribbler toward the baseline as Bennett once favored, the defense turns the ball back to the middle where the help defenders play the gaps to stop penetration. Off-the-ball defenders do not deny when one pass away. Instead, they permit perimeter passing, but dramatically close on the intended receiver when the ball is in the air. The goal is to prevent penetration of the pack-line at all costs and disrupt the rhythm of any jump shot. Instead of looking for steals, defenders contain and bide their time in a game of limited possessions.

Our fictional freshman turned senior at Wisconsin – Green Bay in the early 90s is a stand-in for the actual players who transitioned from Dick Bennett's original pressure scheme to his new containment strategy. The denial tactics they learned freshman year didn't disappear four years later. They were simply modified to fit the competitive environment they faced.

When you watch son Tony's Virginia teams today, you'll still see a defender aggressively pressure the ball soon after it crosses half court and his help side teammates moving toward the rim line to create a numbers advantage for the defense. But the remaining defenders on the ball side no longer extend their defensive perimeter to deny passes. Instead, they pack it in. They're still in a ball-you-man relationship, up the line, ready to help prevent dribble penetration, but now they play *off* the line to absolutely guarantee there will be no penetration.

As a freshman playing for Dick Bennett in 1990, you were coached to "deny, help, and recover" – to step into the passing lane to deflect or steal the entry pass, or at least, force the receiver away from the basket, and, simultaneously, ready yourself to contest the receiver going backdoor or the ball handler attempting to drive the gap.
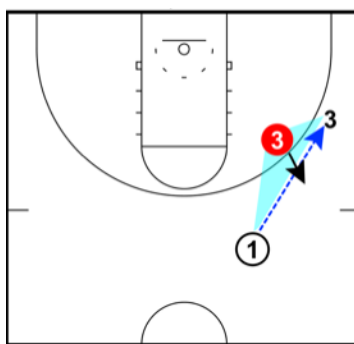
As a senior, Bennett's instructions were different. He no longer believed that you could consistently execute the three commands against superior athletes. Now he coached you only to "help and recover." Instead of attempting to deny a perimeter pass, you moved *off the line* and *farther up it* to

prevent any penetrating drive or pass, but recovered back to you man if the ball was passed to him on the perimeter.
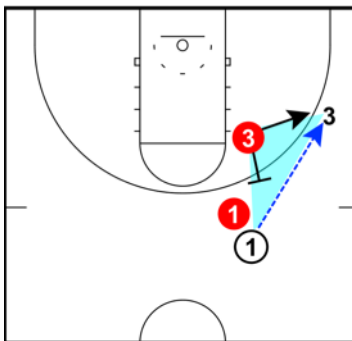
In shifting his perspective, Bennett didn't alter the geography of the court. Nor does any other coach. The court's metaphorical longitudes and latitudes remain intact as do the basic laws for navigating its surface.

Armed with these basic principles, though, a coach decides how to bend them or modify them to the personnel he has and to the competition he faces, and once he has his general defensive strategy in place, determines how his team will execute the many tactical maneuvers that give life to the overall strategy.

- Do we fight over or under screens, aggressively switch, or employ some combination?
- Do we front the low post or play behind?
- On the ball side, do we push the ball to the baseline looking to trap or turn it to gaps in the middle of the defense?
- Do we permit perimeter passes or deny?
- Do we protect the dribble drive with ball side teammates or rely on help side defenders to rotate over so we can stay home to deny pitchouts?
- Do we double-team when the ball goes low? From what direction?
- Etc.

Conclusion

In a game of time, characterized by ever changing spatial relationships, coaches and players need a set of navigation tools to help them recognize and make choices quickly. What are the principles by which you read or "see" the game and its myriad of choices? How does one plot the game's "latitudes and longitudes" accurately? How does one develop "court sense"?

Understanding basketball's third law – *The Basket is True North* – is a starting point for understanding the navigation tools needed to answer these questions. In this essay, we probed these questions through the prism of defense. In *Keep It Binary, Stupid*, the game's fourth law, we'll continue our investigation from the perspective of offense.