better than a layup
Challenging Basketball’s Conventional Wisdom

The Match Up Zone
Rediscovering Gene Sullivan’s Matching Zone Defense
Part I

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Author’s Note

This essay explores Gene Sullivan’s matching zone defense – its origins in the late 1950’s, its fundamental rules and organizing principles, its underlying philosophy, its application in response to various offensive schemes and game situations.

After winning nearly 350 games in a ten-year stretch at Loyola Academy in the powerful Chicago Catholic League, Gene Sullivan ascended to the college ranks in 1967, first at Notre Dame where he served as Johnny Dee’s top assistant during the Austin Carr era and the program’s return to national prominence, then at DePaul University as athletic director where he breathed new life into Ray Meyer’s waning career through aggressive recruiting and creative television marketing, and finally at Loyola Chicago when he returned to coaching, running off D-1’s longest winning streak in 1985.

In developing the piece I relied heavily on notes I composed during my tenure as Notre Dame’s student trainer (1967-71), copies of Coach Sullivan’s numerous handouts and scouting reports, and a series of in-depth conversations with Gene’s longtime high school assistant, Loyola Academy’s John O’Loughlin who not only employed Sullivan’s match-up as a head coach himself but actually experienced it as player on Sullivan’s teams in 1958 and 1959.

Throughout I have taken measured liberty with Sullivan’s original concept, supplementing his somewhat dated terminology with contemporary terms (for example, Gene used “onside” and “offside” to convey what today’s coaches call “ball side” and help side”) and updating his defensive “rules” in response to contemporary “denial” and “trapping” tactics. To the best of my ability I have tried to re-imagine Sullivan’s defense as I believe he would have employed it today.

I’ve organized the essay in two parts. **Part I** presents the Sullivan’s general theory of defense and his strategy for matching and contesting various offensive alignments and maneuvers. **Part II** focuses on defending special situations and employing contemporary trapping tactics to further disrupt the offense.

Closely related to **Parts I and II** is a separate essay I am now developing on Sullivan’s **Double Stack Offense.** When it completed I will post it at betterthanalayup.com.

-- Mark S. Seeberg
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Introduction

In 1964, West Point’s newly appointed head coach, a very young Bob Knight, journeyed to Chicago in search of basketball players with the special blend of intelligence, discipline, and talent required to play for the United States Military Academy. He sought the advice of Bill Shea, dean of the Chicago Catholic League high school coaching community. Bill promptly told him to visit the person he regarded to be the league’s best coach, Loyola Academy’s Gene Sullivan. From Sullivan, Knight learned that he should approach a tough Polish kid named Mike Krzyzewski.

Twenty years later, as the NCAA tournament marched into its Sweet Sixteen weekend, Georgia Tech head coach Bobby Cremins announced his choice for college coach of the year. “The guy I’m voting for is Loyola Chicago’s Gene Sullivan. He’s taken five kids no one has ever heard of and run off the longest winning streak in the country against a very tough schedule, including victories in the opening two rounds of this year’s tournament. Now he’s got his club in the Sweet Sixteen going against Georgetown, the defending national champion. I don’t know anyone who’s done a finer job this season.”

Outside of Chicago basketball circles, few people know who Gene Sullivan was or appreciate his influence on college basketball. He achieved great success but labored in relative obscurity. He is most frequently remembered as the coach linked to two of the highest scorers in NCAA history – Notre Dame’s Austin Carr and Loyola Chicago’s Alfredrick Hughes, and for a succession of feuds with the NCAA over tournament selection and justice for red-shirted freshmen and for schools not afraid to schedule tough games “on the road.”

Among his more ardent followers, though, Sullivan is viewed as “an eccentric genius” as his former high school assistant, John O’Loughlin, once called him. The purpose of this essay or instructional piece is to expose elements of that “genius” by re-creating the matching zone defense Sullivan first pioneered in the late 1950s.

Sullivan conceived his defense in an era of increased scoring and shooting percentages. In large measure he saw the matching zone as a weapon to counter these trends. Ironically, today’s 35-second shot clock and three-pointer have led to lower scoring and declining field goal percentages. The mid-range jumper is often missing in action.

It seems an ideal time to resurface Gene Sullivan’s unique matching zone defense.

Origins of Sullivan’s Match Up Zone

The genesis for Sullivan’s match-up zone lies in the jump shot and Gene’s belief that its development and eventual widespread use fundamentally changed the nature of basketball. In 1969, eleven years after he first pioneered his defense at Chicago’s Loyola Academy, Sullivan – now a college assistant – presented the following to Notre Dame University’s team:
“The development of the jump shot has given the offensive player an explosive weapon. The quick release combined with the height attained has made it necessary for the defensive player to play much tighter than what was previously needed. The defender's aggressiveness makes him vulnerable to the fake and drive and in particular to the lethal pull-up jumper. This makes it imperative that the individual defender have help available when he is out-maneuvered as a result of his aggressiveness or his opponent's greater quickness.”

In response to this reality, Sullivan sought to develop an offensive attack that exploited the advantages of the jump shot and a defensive scheme that offset those same advantages. The results were his Isolation or Stack offense and his Matching Zone defense.

“The Isolation Offense attempts to take advantage of these developments. To isolate means to set apart from others. This refers to both the offensive player and his defender. Practically speaking it mean to give the offensive player room to maneuver for the pull-up jumper while at the same time making it difficult for the defense to help the isolated defender. This is the aim of the Isolation Offense.”

While Sullivan’s Isolation or Stack offense freed players for quick jump shots and drives to the basket, his matching zone tried to offset the potency of the jump shot by masking the defects of basketball’s two fundamental defenses – man-for-man and zone.

“The development of the jump shot combined with improvement in outside shooting has obsoleted basketball's two standard defenses. The zone defense attempted to jam the path to the basket and force the opponent to shoot from the outside. It collapsed around the pivot area disrupting the pivot offense. It was of value as long as the opponent was attempting to get to the basket. Statistics bare out that each year not only is the shooting percentage higher but also that shots are taken from farther out. With the high percentage now being shot it is very dangerous to permit uncovered shots.

The jump shot has given the offensive player a lethal weapon in the one-on-one situation and this has made individual defensive play much more difficult. Before its development it was possible to sag or loosen up on the man with the ball when he dribbled. Now he can stop and shoot right out of the dribble. As a result the defensive man is forced to play much tighter than before. This, in turn, makes it imperative that he have help when he is outmaneuvered because of his aggressive play. When picks and screens are involved it becomes even more difficult to play the individual opponent.

Most offensive basketball results from one, two, or at most three-man maneuvers. Even in pattern basketball that involves the movement of all five players the final assault on the basket revolves around only a few players. It does not make sense to cover players who are not involved in the offensive maneuver.

The matching zone attempts to play the player with the ball or players who are involved in the offensive thrust tightly and to use defenders not directly involved to the best advantage. The assurance of help enables the individual defenders to play tighter and more aggressively than they otherwise would. The matching zone attempts to play five against three, three against two, two against one, etc. It attempts to counteract the advances made in offensive basketball in recent years.

The defense took advantage of basketball’s two standard defenses by combining their respective strengths without adopting their respective weaknesses. It enabled the defense to play the ball tough
and yet have protection against the fake and drive. It accomplished what sags, floats, switches, etc. did in regular defenses but in doing so was less likely to take big men away from the basket, quick men away from out front, or result in mismatches or uncovered shots. Moreover, unlike the matching zones employed by other coaches, it effectively countered offenses featuring multiple cutters.

**The Matching Zone’s New Relevancy**

Sullivan’s matching zone was not a combination of the two standard defenses but rather a new concept of defense. It brought a *bird dimension* to the individual defender.

**Man Defense**  Each defender is assigned a *particular opponent* and makes adjustments relative to the position of the ball.

**Zone Defense**  Each defender is assigned a *particular area of the floor* and makes adjustments relative to the position of the ball.

**Matching Zone**  Each player is assigned a particular floor area and makes adjustments relative *both* to the position of the ball *and* to the position of any opponent who occupies that area.

As noted above, Sullivan conceived his defense in an era of *increased scoring and shooting percentages*. He saw the matching zone as a weapon to counter these trends. Yet, for more than a decade now these trends have reversed: *scoring and field goal percentages are in decline*.

In response -- despite the threat of the three-point shot -- many coaches today have abandoned the aggressive *on the line, up the line* denial style of man defense that has been so popular the last thirty years because it leaves them too vulnerable to back cuts and the dribble drive. In its place they are employing a variety of zone defenses and the Pack Line or Gap man-to-man defense in which they permit ball reversals and concede a greater number of jump shots. They simply *pack the lane* and play the percentages.

In this environment Gene Sullivan’s matching zone achieves new relevancy. As noted above, each player is assigned a particular floor area and makes adjustments relative *both* to the position of the ball *and* to the position of any opponent who occupies that area. Consequently, there are no natural holes as there are in regular zones -- every *catch, drive, and shot is contested* – and the defenders are less vulnerable to the dribble drive. Moreover the matching zone creates lengthy possessions by fostering confusion, thus accentuating the pressure of the 35-second clock.
**Snapshot**

Here’s a quick overview of Gene Sullivan’s match-up zone.

First, assume a 2-3 defensive alignment.

![Diagram 1](image1)

Second, match the offensive alignment by rotating clockwise.

![Diagram 2](image2)

Third, guard the ball aggressively, contesting all mid-range jump shots and dribble drives.

![Diagram 3](image3)
Fourth, permit perimeter passing but deny all attempts to penetrate the interior of the defense.

Fifth, ignore deep cuts to of the offside, zoning off opponents “away from the ball.”

Sixth, check or delay deep cuts to the onside, releasing cutters to the “deepest offside defender.” The “checker” rotates away to “the next player who shows.” The remaining help side defender(s) “rotate down” to the basket ready to “take away the rim” or to take the next onside cutter.
The Initial Set

We begin by setting our defense in a 2-3 or 2-1-2 alignment. We are in crouched, flexed positions, “ready to play.” Our backs are squared to the end line, our arms extended and spread. We are clearly showing “zone.”

The initial 2-3 alignment places each defender in a particular spot on the floor based on each man’s particular size, strength, speed and likely defensive range.

- X1 or P is our quickest guard, likely our point man.
- X2 or O is our shooting or “off” guard.
- X3 or S is our smallest or most mobile forward – our “swing man.”
- X4 or F is our bigger, likely less mobile forward.
- X5 or C is our center.

The position of each player in the initial 2-3 set is especially important when facing an opponent whose the offensive alignment forces us to rotate to find our match-ups.

Rotation and Matching

If our opponent attacks our zone by mirroring our 2-3 alignment, then the match-ups are apparent. Each defender simply matches the opponent who arrives in his assigned zone or area of responsibility.
But if our opponent attacks our 2-3 zone with a different formation, we rotate clockwise to match his alignment. For example, suppose the offensive team uses a 1-3-1 alignment. The clockwise motion of our defenders is important for it insures that the position each defender assumes in our new alignment is best suited to his size, strength, speed, and range – that is, the position most analogous or closest in suitability to his original position in our initial 2-3 set.

In this illustration the clockwise rotation has placed our Point defender – likely our smallest, quickest defender – at the top of the zone while our Off guard and Swing man have rotated to wing positions where they will complete our perimeter defense. Our Center and strong Forward match the interior attackers.

Again, one of the strengths of Sullivan’s matching zone is keeping defenders in those areas of the floor appropriate for each man’s relative size and “defensive reach.” Big men guard the interior, small men the perimeter. Unlike a true man-for-man defense, the matching zone minimizes the possibility of a guard being posted up by a much larger man or bigger men having to guard men away from the basket.

The rotation is keyed by P’s recognition of the offensive front.

• If presented by a two-guard or even front he “stays” in his initial position. No rotation is necessary. Our defensive guards match the two-man front while the backline players find and match the opponents closest to them.

• But when presented with a one-guard or odd front, P decisively steps out and quickly matches the offensive point man. His step-out triggers his teammates’ clockwise rotation.

Below are the match-ups against an array of offensive alignments. We’ll start with a series of standard two-man or EVEN offensive fronts. The red arrows signify the obvious match-ups; the actual position assumed by each defender, of course, is dictated by the position of the ball and his man’s relationship to it.
Now let’s shift to a series of typical one-man or ODD offensive fronts. The red arrows in each diagram depict a *curving motion* to convey the *clockwise* movement of the defense. In reality, of course, each backside defender is simply stepping to his left looking to match the first opponent he finds while the topside defenders are stepping to their right.
Various “overload” and “stack” formations create a several exceptions to the clockwise rotation scheme outlined above and are described later in this instructional piece. (See *Defending Special Situations*).

**Defending Basic Zone Offense Maneuvers**

Once the offensive set has been matched, we apply the following general rules:

1. Each defender is conscious of the man in his court area and the position of the ball, but the ball is king. Know where it is at all times and adjust your position accordingly. Whenever in doubt, **stop the ball**.

2. **Tighten near, sag away.** The middle or the interior is filled from the offside when the ball is lateral and from the backside when the ball is out front. Anticipate the movement of the ball.

3. **Do not match players who not offensive threats** or who are in poor floor position relative to the ball.

4. **Contest all shots inside the lane and all mid-range jumpers** but do not overly extend yourself when matched with poor outside shooters. Instead, stay in the gap to prevent passes or drives to the interior. On three-point attempts, balance your ability to contest with the shooter’s range, ability, and willingness – especially when he is shooting from the corner.

5. **Be aware of “the next man away”** so that if the ball is passed to him you are in position to “jump to the ball” to help your teammate prevent a drive to the gap.

6. If rotated out of your assigned area in the defense’s initial 2-3 alignment, **return to it when the offense permits**.

In Sullivan’s matching zone we permit perimeter passing but aggressively deny penetrating passes and drives. In effect, once we match the offensive set, we play an aggressive, switching man-to-man defense that protects the basket and all gaps leading to it. In many ways Sullivan’s matching zone resembles a modern Gap or Pack Line defense. Using a combination of zone, help, and denial...
techniques, defenders close aggressively on the ball to contest shots, cut off near passing lanes to the post, take away driving angles, and zone off opponents “two passes away.”

Continuing our basic rules:

7. **On each pass, step quickly and assertively in the direction of the pass.**

8. When positioned on the help side, **step not only in the direction of the pass but also back toward the basket.** Move quickly when the ball is in flight so that you are in position to step in front of cutters or to block the flight of the ball “to the rim.”

As the ball moves from one side of the floor to the other, the “ball side” and “help side” shift. It is vitally important for the defenders to anticipate this movement and to adjust their positions accordingly. The shaded areas in the diagrams that follow indicate the help side of the defense as the ball is passed from one side to the other.

9. When positioned on the onside or ball side, do not close out until the pass is in the air. As the pass is in flight the defender responsible for the intended receiver should close aggressively and quickly to insure that the receiver cannot get off an immediate shot or make an easy skip or diagonal pass. Do so knowing that you have four teammates in help position.

10. **Call “ball” on every catch to insure that only one player takes the receiver.**

11. **Play the ball tough.** When guarding a man with the ball who is a scoring threat, do not release him.
12. Switch whenever a dribbler and his teammate “cross your face.”

13. Stay with the dribbler on “shallow” perimeter cuts; switch zones, not men. In such situations, the offside guard initiates a “clearing” action to create space for the dribbler to drag the ball across the face of the defense. For example, in the illustration below the offside guard has *looped* behind his defender hoping that P will “lose sight” of him and attempt to take the dribbler. If O releases the dribbler to P he will find it virtually impossible “to find” and contest the shallow cutter who is now behind him. The result is an open shooter if the dribbler passes the ball back to the shallow cutter.

To prevent this P must stay with the looping cutter and O must not release the dribbler.
A variation of this rule occurs when an offside guard attempts to *split the defense* by cutting *between* the defenders, then looping back to replace the area his dribbling teammate has vacated. Again, switch zones, not men. This keeps pressure on the ball and prevents the return pass for an uncontested jumper.

**Note:** Later in this instructional piece I will introduce *Trapping* calls that can be applied to these situations.

**14. On all screens and exchanges step out and switch aggressively.** Take initiative on all such maneuvers.
15. Deny the flash cut to the block, the high post or elbow, and any high / low situation. Generally, this rule applies when defending players who are aligned on the offside, below the free-throw line extended.

![Diagram](image)

16. They drag, we drag.

![Diagram](image)

**Defending Cutters**

The traditional zone defense is plagued by two closely related weaknesses: passivity and confusion.

By definition the defenders are assigned a zone to guard instead of a man. Each zone in the defense is static – it doesn’t move – it just is. Consequently, it is relatively easy for the defender assigned to a particular zone to grow passive, to “watch and wait” as the game unfolds instead of taking initiative.
Secondly, there are natural gaps between each zone. By placing its players in these gaps the offensive team creates indecision about which defender is to take the attacker in nearby gap. “Is this your man or mine?” The defenders’ indecision leads to confusion that over the course of the game foments passivity. It’s a vicious circle.

Since Sullivan’s matching zone matches the offensive formation, the gaps between zones do not exist. If the offense attempts to create quality shots by simply moving the ball and stepping or flashing men into the natural gaps they expect to find, the attackers will soon grow frustrated as the match-up has eliminated the very gaps the zone offense is designed to exploit. At this point, the offense will begin running cutters through the body of the zone in an attempt to “distort” the zone and confuse the defenders, or to create overloads in which attackers outnumber defenders.

The inability to match or cope effectively with cutters is the fundamental weakness of most matching zones.

Sullivan’s genius was to find way to meet this challenge and to do so within the framework of rules he had already established for his defense; he did not generate a long list of “exceptions” for his players to master. To prevent cutters from creating and then exploiting uncovered seams in the defense, Sullivan developed three closely related rules:

• “Shallow” cuts on the perimeter are contested with the defenders simply swapping their respective zones – they switch zone assignments not men.

• Penetrating or “deep cuts” to the help side of the floor are largely ignored as the cutter is moving away from the ball and can be effectively zoned by offside defenders.

In effect, such a cutter is not an immediate or likely threat and consequently is permitted a free cut. As the cut is made, the matching defender steps down toward the basket, jamming the natural passing lanes as he goes, looking to match “the next man who shows.”
- Penetrating or “deep cuts” to the **ball side** of the floor are first checked and delayed by the matching defender, then released to the deepest offside defender. Simultaneously, any remaining offside defenders rotate down to the basket “to take away the rim” and to ready themselves to pick up any subsequent cutters. After releasing the cutter, the “checker” rotates away looking to match the next man away from the ball. Very often “the next man away” will present himself to the checker as he fills the void left by the cutter.

![Diagram](image)

While these last two rules are difficult to capture in words they are fairly natural actions for defenders to implement once learned through repetition. Here is the defender’s thought process once he has mastered the rules through practice.

*When defending a guard who passes to the wing, I will step toward the ball and back to the basket so that I can prevent a drive to the gap and simultaneously help protect the high post area.*

*From this position I can still see my man and the ball. If he cuts away, I will let him go and prepare to take the man who will likely fill the void he leaves. If, instead, my man makes a penetrating cut to the ball side, I will check or delay his cut, then rotate away, looking to match the next man who shows.*

Of special importance is the need for offside or help side defenders to anticipate what they must do, moving into the proper position as the ball is passed and the “ball” / “help” sides are established. By the time the penetrating cut to the ball side begins they should already be in position to pick up the cutter and deny any passes “to the rim.” The concept of “rotating down” to the basket and “in the direction of the ball” is what permits help side defenders to cover multiple cutters.
In the same way, the action of the ball side defender who checked the cutter, then rotated away, looking to match the next man away” or “the next man who shows,” is what maintains the integrity of the zone and prevents drives to the gap. Sullivan’s use of the phrase “rotating away, looking to match the next man away” or “to match the next man who shows” (*be used these phrases interchangeably*) is figurative, not literal in its intention. What the defender is actually being instructed to do is to block the cutter then look immediately to match the “next man away.” Very often this man is moving toward him, seeking to fill the void created by his cutting teammate. In such a case there is no rotation “away”; the defender checks the cutter and simply steps back out to greet his new match-up. In other cases, the “next man away” is on the help side. The defender “rotates away” *not to the man himself* but to the natural gap he would assume if he were playing good help side defense.

Depicted below are various examples of cutter coverage. We’ll begin with cutters emerging from a 2-3 attacking alignment, then illustrate cutter coverage versus a 1-3-1 attack.

### 2-3 Onside guard
cuts Onside

- **P** steps in the direction of the pass, delays the cutter, and rotates away, preparing to match “the next man who shows.”

- **F** is the deepest offside player. He shifts quickly in the direction of the pass, stepping in front and matching the cutter.

- **O** steps back toward the basket as the ball is passed, preparing to check any subsequent cutter or flash “to the rim.”
2-3 Onside guard cuts Offside

- P permits free cut and looks to match “next man away.”

- F is the deepest offside player. He shifts quickly in the direction of the pass, zoning off the cutting guard and any other attacker positioned to his backside.

- O steps back toward the basket as the ball is passed, joining his teammate in zoning off any backside attackers.

2-3 Offside guard cuts Onside

- P steps in the direction of the pass, helping to protect the gap and slowing the cutter if necessary.

- F is the deepest offside player. He shifts quickly in the direction of the pass, stepping in front and matching the cutter.

- O steps in the direction of the pass, slowing the cutter and preparing to block any subsequent cutter or flash cut “to the rim.”
2-3 Offside guard cuts offside, then reverses to the Onside with ball *at the wing*

- **P** steps in the direction of the pass, playing the gap between 1 and 3.

- **F** is the deepest offside player. He shifts quickly in the direction of the pass, stepping in front and matching the cutter.

- **O** steps back toward the basket as the ball is passed, exchanging his man with **F**.

2-3 Offside guard cuts offside, then reverses to the Onside with ball *at the guard*

- **P** steps in back toward the basket as the ball is passed, exchanging his man with **S**.

- **S** becomes is the deepest offside player as the ball is passed. He shifts quickly in the direction of the pass, stepping in front and matching the cutter.
1-3-1 Wing cuts after pass to corner. Treat as Onside cut

- O steps in the direction of the pass, delays the cutter, and rotates away, preparing to match “the next man who shows.”

- S is the deepest offside player who has stepped quickly to the ball side as the ball is passed from 1 to 2 to 4. He steps in front and matches the cutter.

- P steps back toward the basket as the ball is passed, preparing to check any subsequent cutter or flash “to the rim.”

1-3-1 Wing cuts after pass to point; treat as Offside cut

- O and F simply exchange men. As the ball is passed from the wing to the point, O steps down and toward the shifting ball side. F steps in the direction of the pass placing himself in position to match the cutter.
1-3-1 Point cuts Onside after pass to wing

- P steps in the direction of the pass, delaying the cutter, then rotates away, preparing to match “the next man who shows.”

- As the ball is passed, O becomes the deepest offside player. He steps quickly in the direction of the pass and matches the cutter.

- F remains matched to his man following him to the ballside corner or short corner.

1-3-1 Point cuts Offside after pass to wing

- P permits a free cut. He plays the onside gap, looking to match the “next man who shows.”

- As the ball is passed, O becomes the deepest offside player. He steps quickly in the direction of the pass and protects the rim, looking to deny any cutter or flash that shows.

- F remains matched to his man following him to the ballside corner or short corner.
1-3-1 Center pull-out after pass to corner; treat as Onside cut

- S delays the cutter and rotates away, preparing to match “the next man who shows” — in this case, the center.

- O is the deepest offside player. He steps in front and matches the cutter.

- C and P zone the middle until the offense commits.

1-3-1 Wing cut followed by corner drag-out

- S delays the cutter and rotates away, preparing to match “the next man who shows” — in this case, the dribbler.

- F checks the dribbler, then releases him to S. He then retreats to the interior.

- O is the deepest offside player. He steps in front and matches the cutter.
Part II Preview

As noted in the Author’s Note at the start of this essay, Part II is now in development and will focus on defending special situations and employing contemporary trapping tactics to further disrupt the offense. Additionally, Part II will explore individual positioning tactics, common mistakes, and coordinating Sullivan’s matching zone with full-court pressure. When completed, I will post it at betterthanalayup.com.