An analysis of the swing of...

Albert Pujols

Home Run First Base View

Chris O'Leary

December 15, 2006

Version 1.1

How To Use This eBook

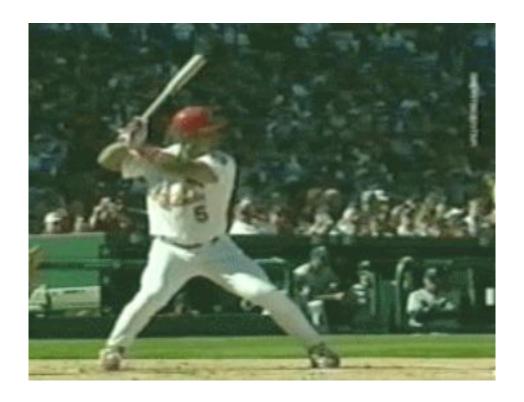
The best way to use this eBook is to go through it frame by frame. You can advance from one frame to the next using the up/down keys on the keyboard. This will enable you to walk forwards and backwards through critical frames of the swing.

About Chris O'Leary

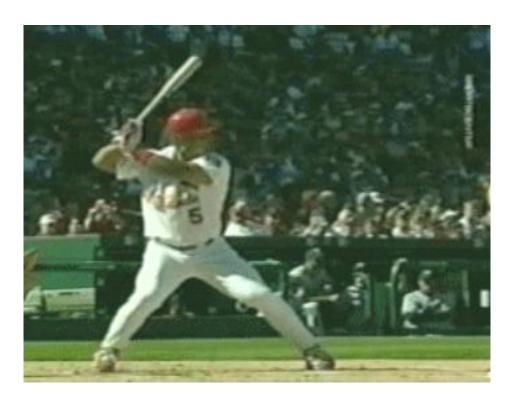
Chris O'Leary is a coach, instructor, analyst, and writer who works with baseball pitchers and baseball and fast pitch softball hitters. He has worked with players ranging in age from pre-school through major D-1 college, minor league, and Major League levels. Chris O'Leary can be contacted via e-mail at thepainguy@gmail.com or by phone at 314.494.1324. More of Chris O'Leary's writings can be found at his web site: www.chrisoleary.com

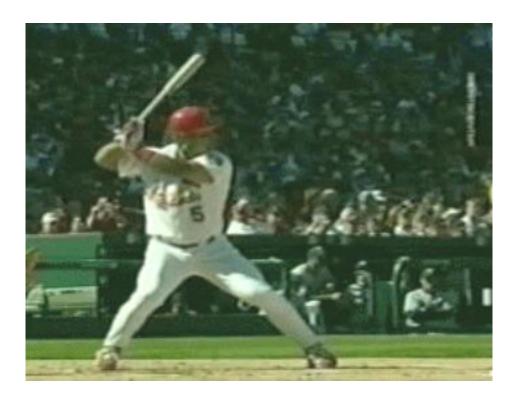
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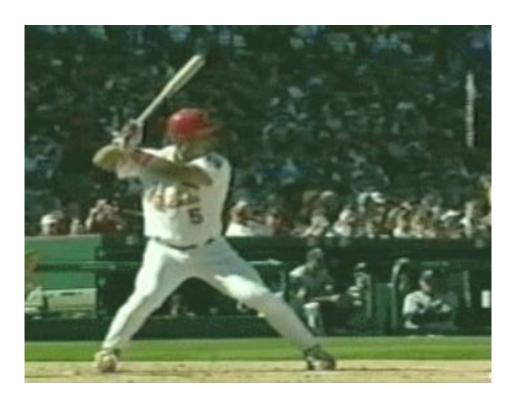
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This is a home run swing.



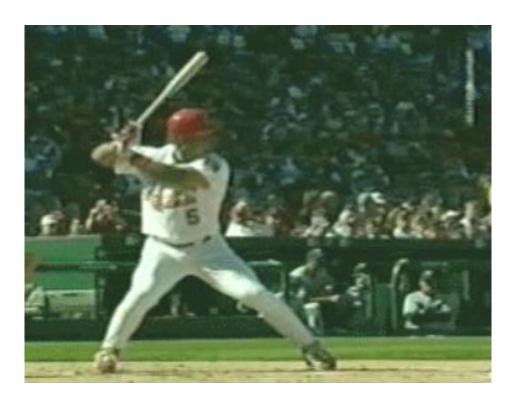


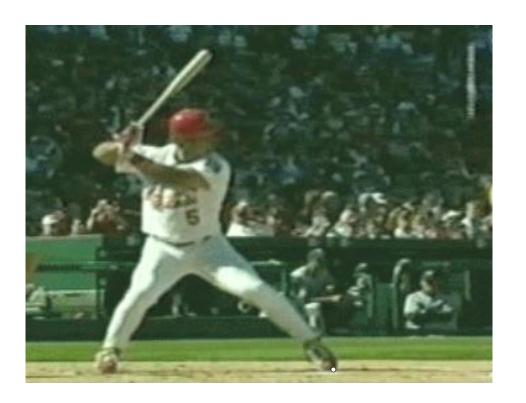


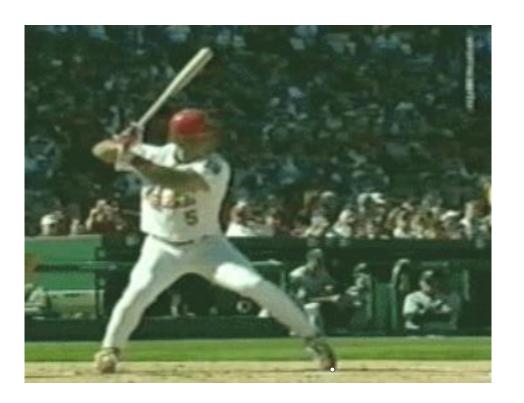


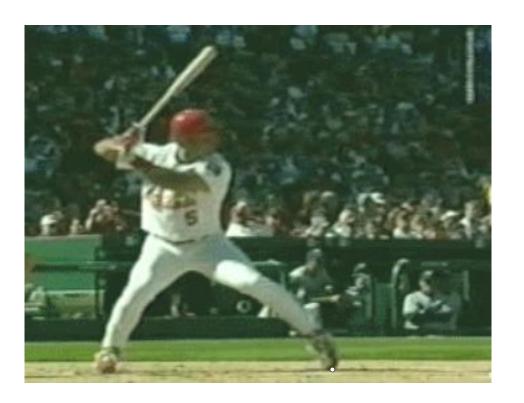


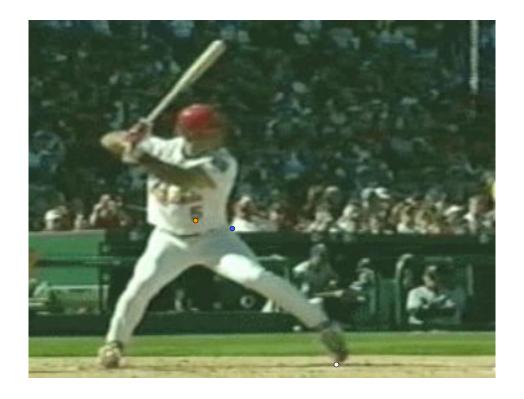
Albert Pujols' front heel is just starting to leave the ground. Notice that his hands are roughly at the same level as his shoulders and are back by his back shoulder.





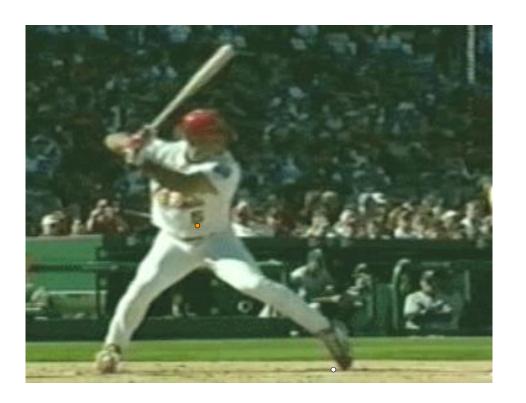


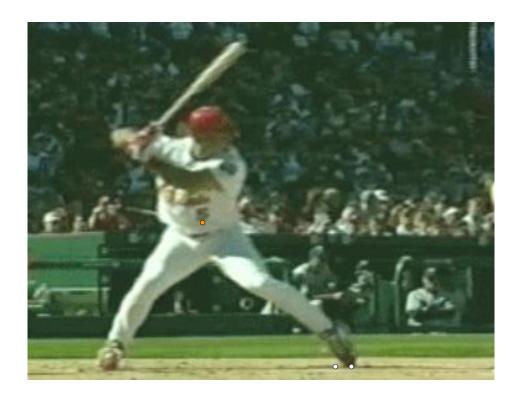




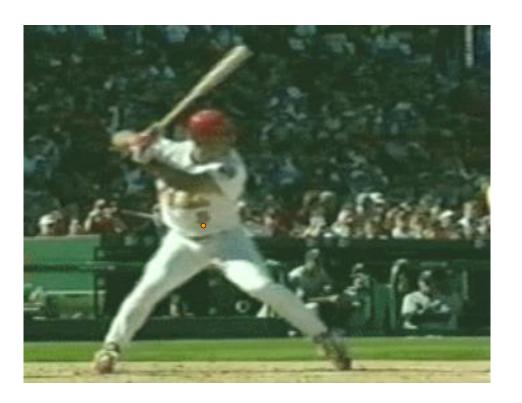
Albert Pujols front toe has just come off the ground and he is pushing off of the side of his back foot toward the pitcher to get his hips and his Center Of Mass (the orange dot) moving toward the pitcher. This weight shift will help his hips rotate around his front leg as it stiffens.

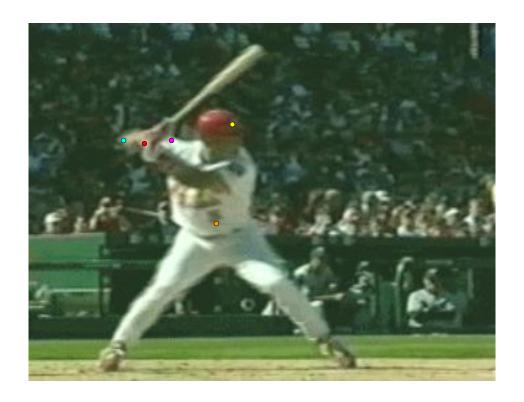




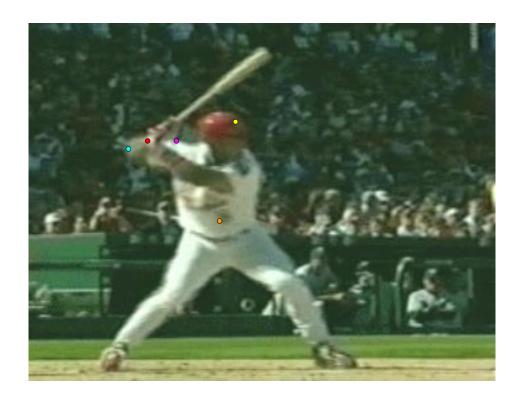


Albert Pujols' front toe has just landed back on the ground. His front toe moved maybe 3 or 4 inches toward the pitcher (the distance between the two white dots) during his "stride". In this frame, Albert Pujols' front toe is at the point of maximum internal rotation.





Albert Pujols' back elbow (the blue/green dot) is just starting to drop.



Albert Pujols' front heel is just about to plant and his back elbow is just starting to drop into the slot.



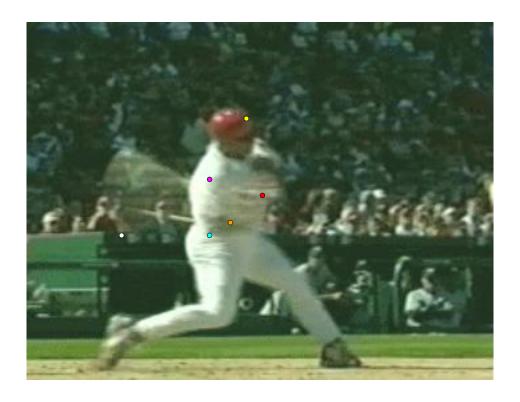
Albert Pujols' front heel has just planted. His hands have just started to move, his back elbow has dropped significantly, and his back heel has just come off the ground. His back leg is starting to internally rotate, and his back knee is starting to bend, while his shoulders have not yet started to rotate, indicating that his hips are rotating just ahead of his shoulders. In other words, Albert Pujols swings more Middle-Out (from the hips) than Top-Down (from the shoulders) or Bottom-Up (from the feet). His back shoulder (the pink dot) is starting to drop and his front shoulder is coming up as he starts to rotate his shoulders around his tilted spine. His hips have moved forward roughly 9 inches (the distance between the two blue dots).



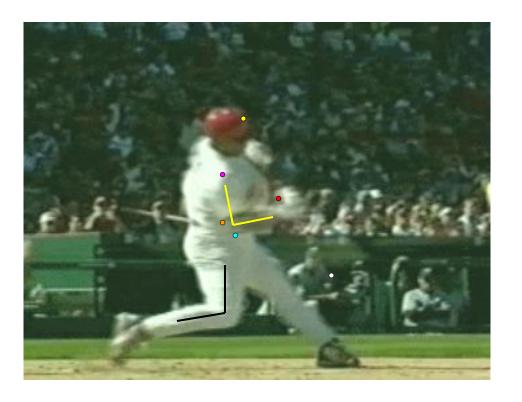
Albert Pujols' shoulders are rotating increasingly quickly around his spine, which is causing his hands and the bat to start moving. His back shoulder has dropped significantly. His Center Of Mass (the orange dot) moved forward roughly 9 inches during his stride and weight shift.



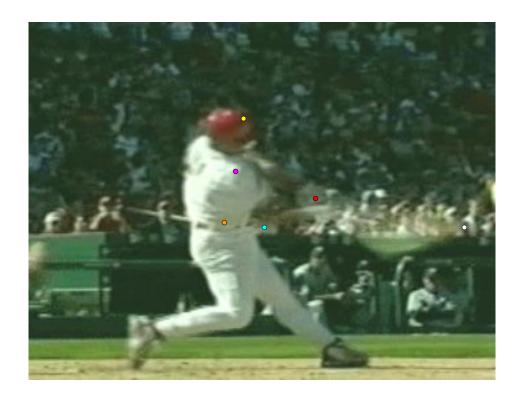
Albert Pujols is on the toe of his back foot. This is due to a <u>pull</u> from his hips and the rapid internal rotation of his back upper leg, not because he <u>pushed</u> off of his back foot.



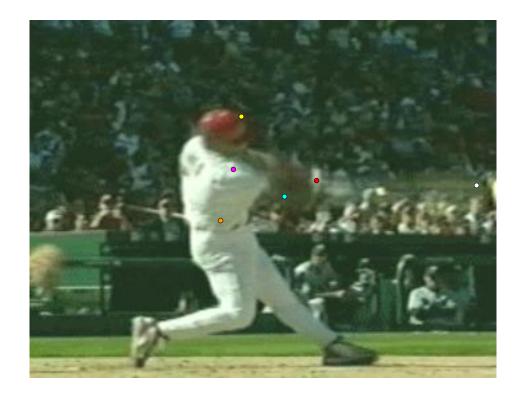
Albert Pujols' bat is in the lag position, pointing back toward the catcher. This is due to the rapid rotation of his shoulders and thus his hands (and not because he is trying the bring the knob of the bat to the ball). His front knee is stiffening and the inside of his front foot is starting to come off the ground. The stiffening of the front knee coincides with the acceleration of the rotation of his shoulders. Notice how Albert Pujols' hands and the knob of the bat (the red dot) are well ahead of his back elbow (the green dot). IOW, and as you would expect, Pujols shows no signs of bat drag. Notice how steady his head (the yellow dot) is from this point through the point of contact.



Point Of Contact: Albert Pujols' shoulders (the pink dot) have largely stopped rotating. His back elbow is by his back hip and his back upper arm is maybe 15 degrees off of the vertical. His hands are still relatively close to his back shoulder, which means he did not throw his hands at the ball. His back toe is up in the air at the Point Of Contact (not squishing the bug). His weight is being born by his front foot, but his Center of Mass (the orange dot) is located roughly midway between his front foot and his back foot. The mass behind the front foot is counterbalanced by the mass of the bat as it rotates in front of the front foot. His back heel is vertical and his back knee is bent around 90 degrees in the shape of a backwards upper case L. His back upper arm and forearm are also forming an upper case L (aka Power L). His front palm is facing down. There were 5 frames from front heel plant and the start of shoulder rotation to the Point Of Contact.



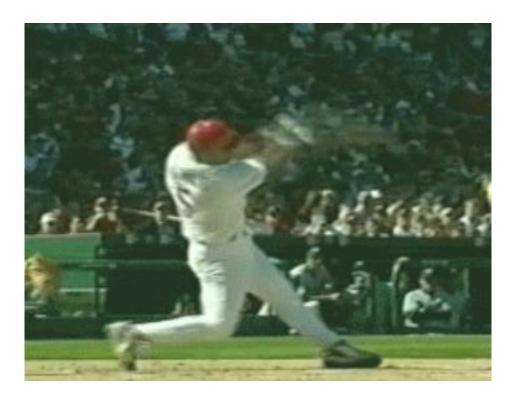
Albert Pujols' front hand is still palm down. There is no sign of significant rolling of the wrists.

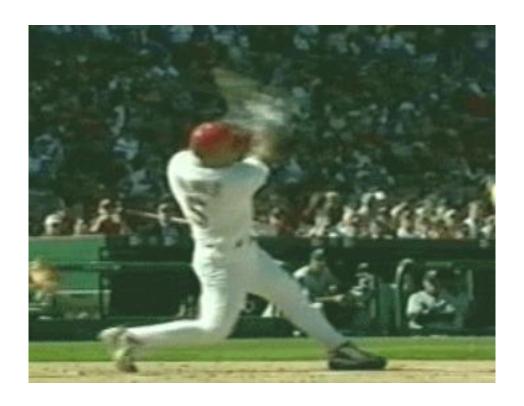


Albert Pujols is making the "Power V", but 2 frames <u>after</u> the Point of Contact. The centrifugal force of the bat has overcome the ability of his arms to apply centripetal force, which has caused his hands to fly out toward the pitcher and his arms to make the "Power V". In other words, the "Power V", and the movement of the hands toward the pitcher, are the EFFECT of his powerful swing, not the CAUSE. His back toe has just touched the ground again.

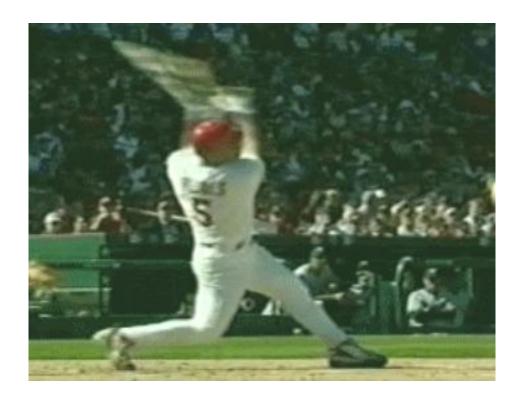


Albert Pujols' back foot is starting to bear some weight again.

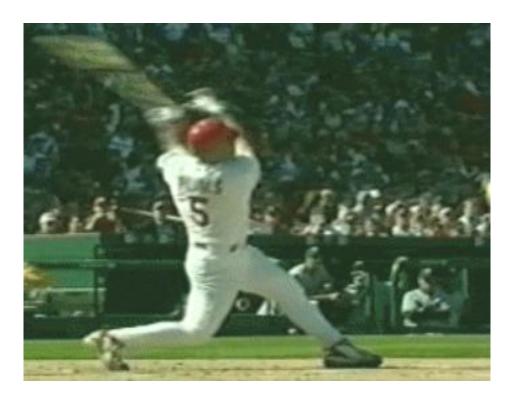


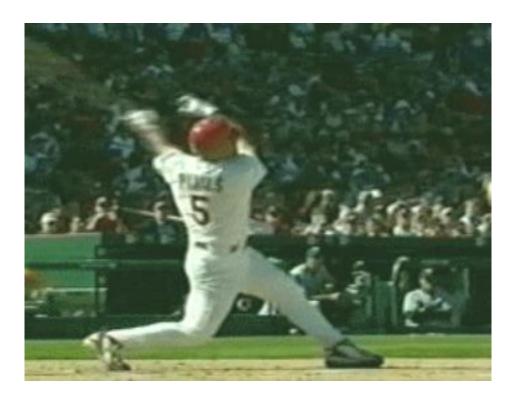


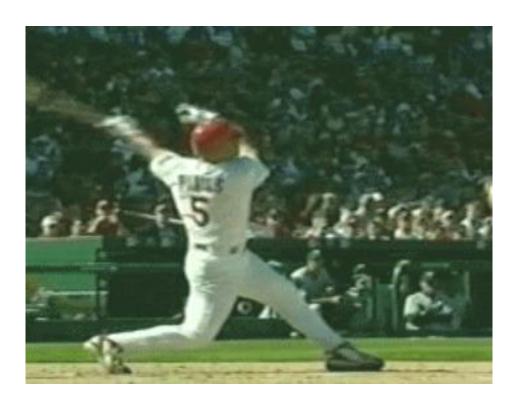
Albert Pujols just let go of the bat with his back hand.



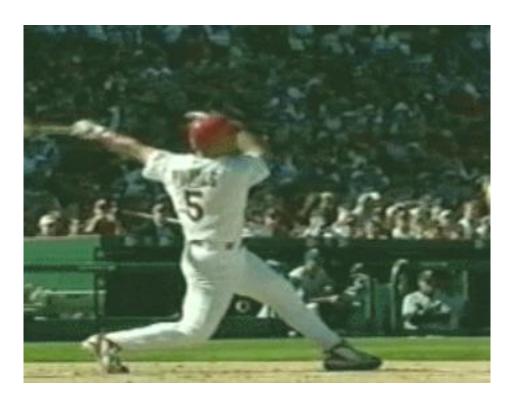
Now Albert Pujols is squishing the bug, but well <u>after</u> the Point Of Contact.

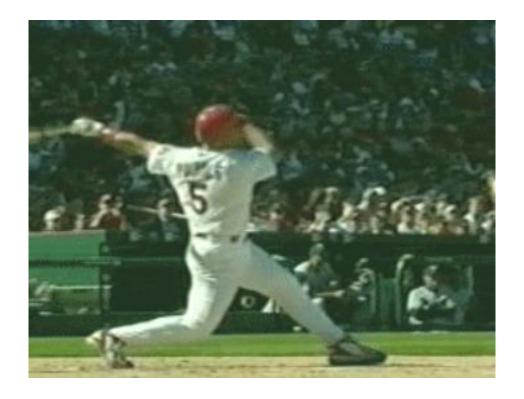












I love how Albert Pujols finishes his swing. There's absolutely no chance that he cut his swing short and that the head of the bat was decelerating at the point of contact. Talk about swinging through the ball.

About This Document

This document is one of my early hitting flipbooks. I put these flipbooks together using Standard Definition (SD) video clips that I pulled off the internet. While these flipbooks helped hitters like Andres Torres of the San Francisco Giants understand what a good swing actually looks like, they are only of limited value due to the low resolution of the clips and the amount of blurring in them.

In the years since I put these SD flipbooks together, I have collected large numbers of High Definition (HD) and 120 FPS video clips. I have put together new flipbooks using these better clips, examples of which are on the following pages and linked to below...

- Albert Pujols Sample HD Flipbook

These new, updated flipbooks are only available on my client site...

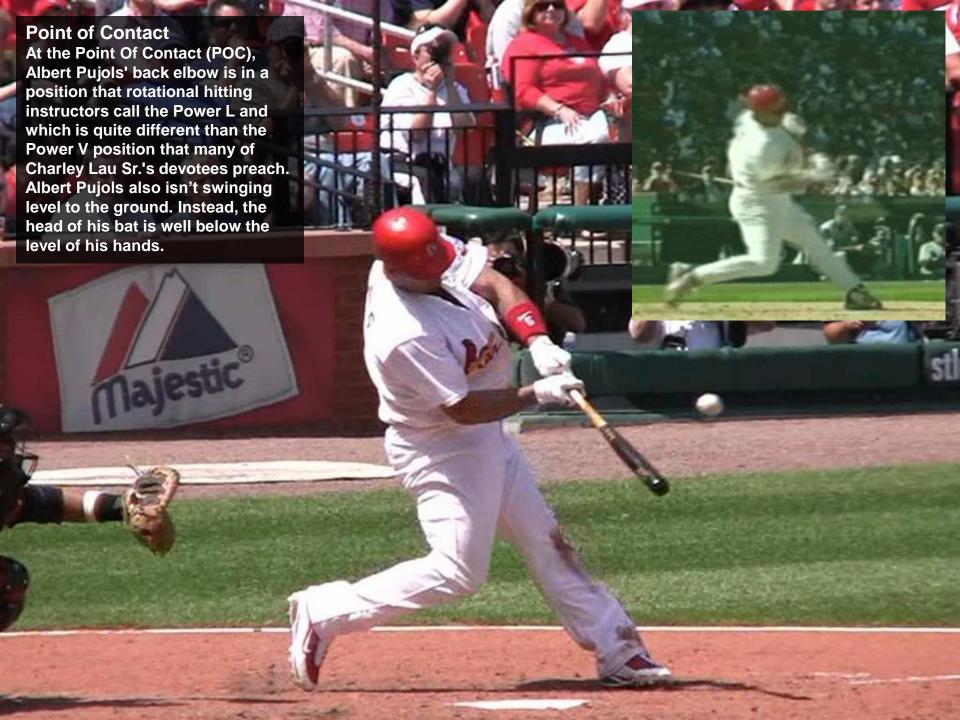
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In addition to updated, non-blurry, printable, HD and 120FPS flipbooks of Albert Pujols' swing, I am continually creating new flipbooks that describe the swings of some of the best hitters, including the best new, younger hitters. That includes hitters like Jose Bautista, Miguel Cabrera, Bryce Harper, and Mike Trout.





Point Of Contact: Albert Pujols' back elbow is by his back hip and his back upper arm is maybe 15 degrees off of the vertical. His hands are still relatively close to his back shoulder, which means he did not throw his hands at the ball. His back toe is up in the air at the Point Of Contact (<u>not</u> squishing the bug). His weight is being born by his front foot, but his Center of Mass is located roughly midway between his front foot and his back foot. The mass behind the front foot is counterbalanced by the mass of the bat as it rotates in front of the front foot. His back heel is vertical and his back knee is bent around 90 degrees in the shape of a backwards upper case L. His back elbow and forearm are also forming an upper case L. His front palm is facing down. There were 10 frames from front heel plant and the start of his shoulder turn to the Point Of Contact.



For More Information

For more information about the concepts and ideas discussed in this eBook, contact Chris O'Leary via...

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More of Chris O'Leary's writings can be found on his web site...

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