

# JAVELIN OBSERVATIONS

By Michel Thieurmél et. al.

*A summary of the basic technique of the javelin throw with emphasis on the major aspects, summed up in an observation chart. The article is based on a translated extract from the author's contribution to Revue de l'AEFA, No. 75, 1981, Paris, France, edited by Daniel Lamare. Re-printed with permission from Modern Athlete and Coach.*

## BASIC TECHNIQUE

### *Starting Position:*

- The javelin is carried in a horizontal position above the shoulder.
- The left foot is placed in front of the right with the left arm bent in front of the chest.

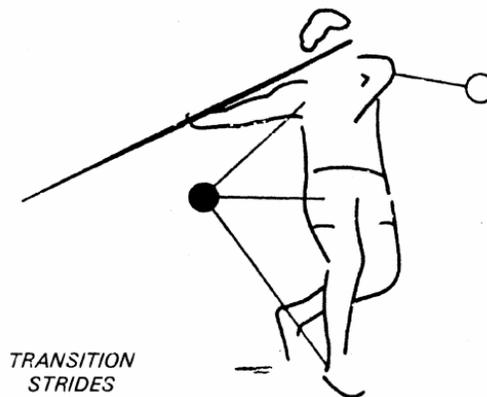
### *Run-up:*

- The length of the first part of the run-up is eight strides, or more, to reach an optimal speed before the check mark.
- A check mark is placed on the eighth stride (left foot) that signals the beginning of the withdrawal of the javelin, executed in two strides. (The thrower, in effect, attempts to overtake the javelin).
- According to individual preferences the run-up is therefore made up of 8 + 4 or 8 + 6 strides.

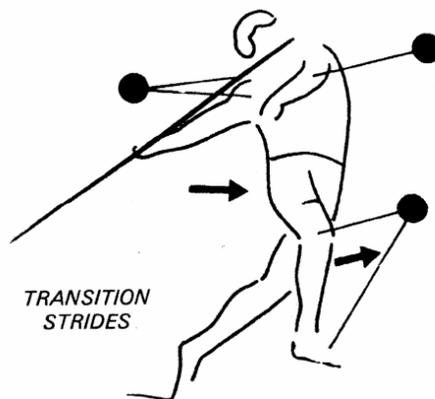
### *Transition Strides:*

It is important to control the amplitude of the lateral stride that precedes the cross step. It makes it possible to:

- Place the pelvis in the same plane as that of the legs and shoulders;
- Stretch the abductors to assist the return and the following action of the right leg in the cross step;
- Prepare for the forward movement of the hips.



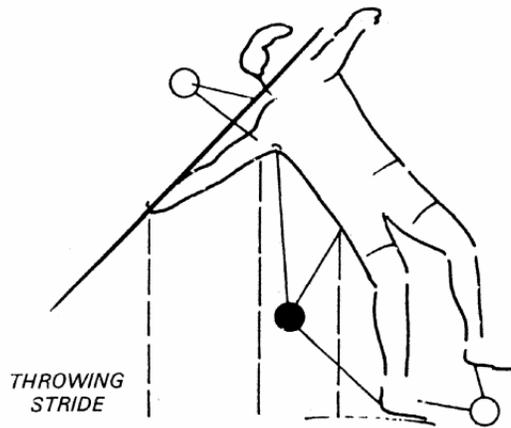
During the power stride, or the last transition stride, the right leg has to cross the left slightly flexed with a high knee drive in a forward direction (the thigh is almost horizontal). This action pushes the hips in front of the shoulders and is accompanied by the closing of the left shoulder by the left arm, the easing back of the trunk and the alignment of the throwing shoulder with the javelin into the direction of the throw. There is a backward inclination as the result from the drive that advanced the hips.



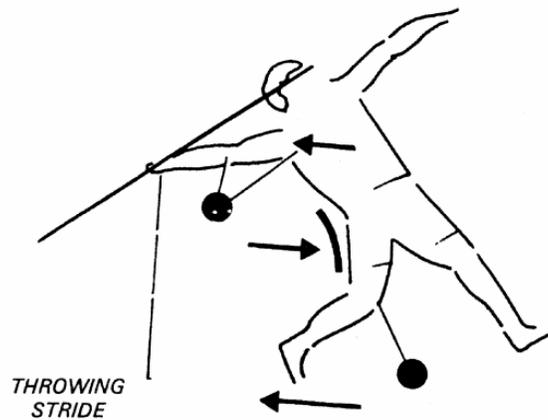
### *The Throwing Stride*

At the landing of the right foot (usually on its edge), the left leg has to be in front of the right leg with the upper body inclined to the rear, the right foot in front of the pelvis and the left foot in front of the right hip. If the athlete places his foot mainly on its ball, there is a strong possibility that a counter rotation of the right heel will occur, preventing the right foot being oriented to the rear. In this case it is necessary to ground the right heel faster with a deliberate placement.

It is also necessary to take a few precautions in the grounding of the right heel, particularly where young athletes are involved, in order to prevent heel injuries (the problem of ossification of the heel bone, fragility of cartilages).

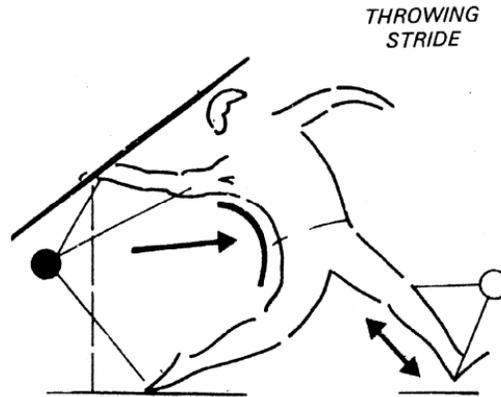


As soon as the bodyweight is moved over the right leg the thrower has to place the left foot fast forward on the heel in a position under the javelin. To achieve this, the athlete turns the inside of the right knee towards the left foot, keeping it flexed and rolling from one edge of the foot to the other as it drives forward.



This fast action, combined with an attempt to place the left foot on the ground, heel first, must allow the hips to continue its forward movement without slowing down and without lifting the body between the placing of the right and the left foot. The grounding of the left foot, that ends the support, the drive and the rotational action of the right leg, is synchronized with the movement of the right hip to the front. In this position the right arm, and not the whole of the right side (shoulder-arms opening of the thorax), helps to retard voluntarily the shoulder of the throwing hand.

The deformation of the right side towards the front to form an arc is supported by a rigid left leg that provides a point of dynamic support.

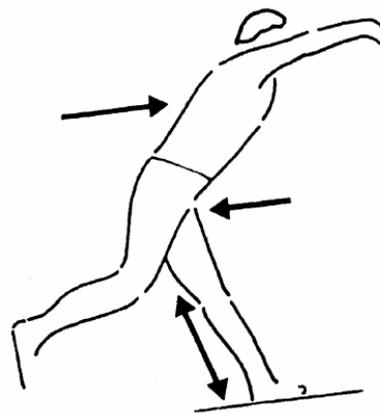


At the moment when the right foot leaves the ground, the left arm (in an internal rotation), bent in the elbow, is lowered to cling close and tightly against the left side of the body when the left foot hits the ground. This allows to:

- Tighten the left side of the body solidly in order to avoid pulling back the shoulders;
- Sink the left shoulder in order to assist the lifting of the throwing shoulder, which allows a better transfer of forces to the javelin.

At the end of the throwing stride the hand on the javelin ends its action when it reaches the vertical point over the extended heft foot. After this the right leg is brought to the front of the centre of gravity to stop forward movement.

During all phases of the throw the eyes concentrate to the front in the direction of the throw (javelin point and trajectory).



*THE END OF THE THROWING STRIDE.*

## OBSERVATION CHART

NAME ..... PLACE .....

CLUB ..... CONDITIONS .....

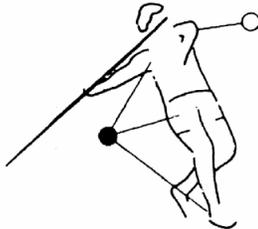
DATE ..... PERFORMANCE.....



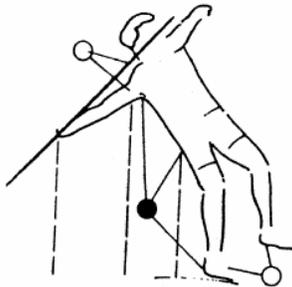
- Running strides ..... + .....
- Rhythm .....
- Stability of the javelin:
  - Amplitude of the stride preceding the cross-step
  - Javelin axis maintained, point near the face
  - Support dynamics (left hip in front)



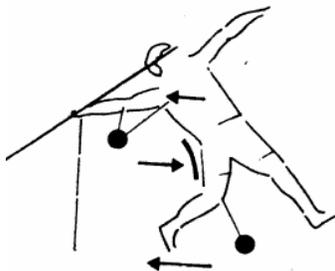
- Cross step: advance the support and hips
  - The right knee crosses near the left leg
  - The left arm is near the shoulder
  - The javelin axis is maintained (right shoulder back)



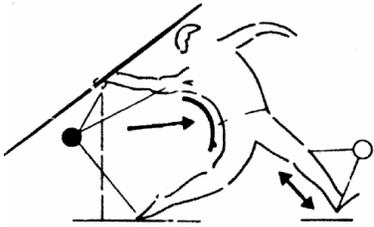
- Suspension
  - The upper body stays relaxed
  - The left leg moves again to front
  - The athlete leans backwards



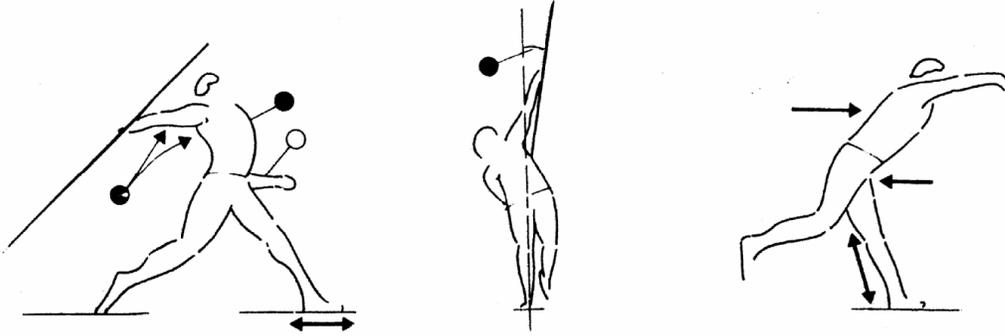
- The right foot moves in front of the pelvis.
- The upper body maintains a backwards lean
- The left hip and the left leg are in front of the flexed right leg.
- There is no need to “check” the pelvis.
- The javelin position is maintained (the hand does not drop).



- The right foot is driving forward (the right knee remains flexed), looking for a quick support from the left leg.
- The shoulder and the right hand are kept back.
- The left shoulder is kept high.
- The pelvis is driven forward towards the left leg.
- The inclination of the shoulder line is maintained with the upper body leaning backwards.



- The left leg is grounded, heel first.
- An arched body position.
- The left arm begins to lower.
- The right arm is kept back.
- The forces created by the breaking of the hips by the left leg are transferred to the upper body.



- The trunk is moved forward and up.
- The left elbow is lowered against the left hip.
- The right shoulder lifts, pulling along the javelin, supported by a rigid left side (hip and shoulders do not move back).
- The javelin is released near the point vertical above the left foot.