

# POLE VAULT: THINKING HORIZONTAL TO GET VERTICAL

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# POLE VAULT

- ⦿ Laws of Physics Control everything we do.
- ⦿ Training and Technique must center around this fact.
- ⦿ In Order to Defy Gravity must learn to make the pole rotate first. The pole must rotate from its initial position to a vertical position.
- ⦿ How do we make the Pole Rotate?
  - Create Energy on the Runway. -The Approach
  - Convert Energy -Plant and Take-Off
  - Control Energy -The Swing and Invert through Clearance.  
The Pole must never stop Rotating

# THE APPROACH

- ◉ Create Horizontal Energy and Momentum
- ◉ Rhythmic and Consistent Approach
- ◉ Strong Driving
- ◉ Transition into Tall Max Velocity Mechanics
- ◉ Learn to Sprint with a Pole (POSTURE)
- ◉ Allow the Vaulter to be Aggressive THRU Take-Off
- ◉ Proper position to Plant and Take-Off

# THE APPROACH



# THE PLANT

- ◉ Convert the Horizontal Momentum Developed in the Approach
- ◉ Move the Pole into the highest Initial Position Possible
- ◉ Tall, Chest up, BIG Arms,
- ◉ Get the pole to the highest possible position to allow the pole to rotate

# AND TAKE-OFF

- ⦿ Jump up thru the Pole and Transfer Energy into the Vault. All Energy is Directed up and over the bar
- ⦿ Penultimate Step
- ⦿ Take Off Position
  - Full Extension
  - Knee Drive
- ⦿ Path of Center of Mass
- ⦿ Cannot Separate the Plant and Take-Off Must Happen Simultaneously
- ⦿ **MAKE THE POLE ROTATE FAST!!**



# PLANT AND TAKE OFF



# THE SWING

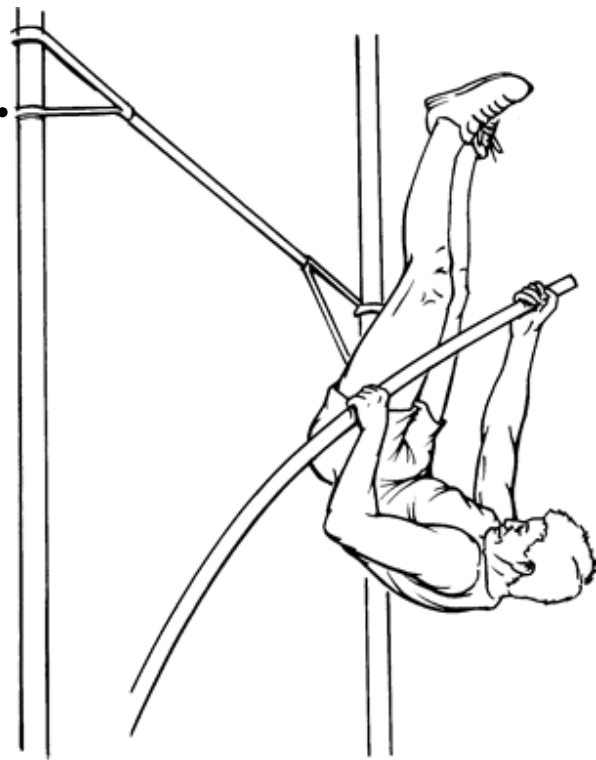
- Follow Thru, Chest moves forward and arms up and back. Create a stretch thru the whole body, keeping the take-off leg back
- Swing happens around the Shoulder, much like a gymnast in a giant.
- Vaulter must be doing work as long as he or she is on the pole
  - Keep the Pole Moving.
  - Vaulter can add energy to the system here.





# THE SWING

- ◉ Long Swing, Long and Fast aggressive leg swing. (Add Energy to the System) Continue to make the pole rotate
- ◉ Swing the legs and hips Back over the top hands and head.
- ◉ Cover a Bent Pole



# THE SWING



# INVERT THRU CLEARANCE

- ◉ Drive the hips Vertically as you drive the shoulders down
- ◉ Add Energy to the system
- ◉ Summate the Forces
- ◉ Keep Pressure on the pole with Top Hand
- ◉ Turn as your inverting, Swing to the turn
- ◉ Push off and clear the bar

# INVERT THRU CLEARANCE



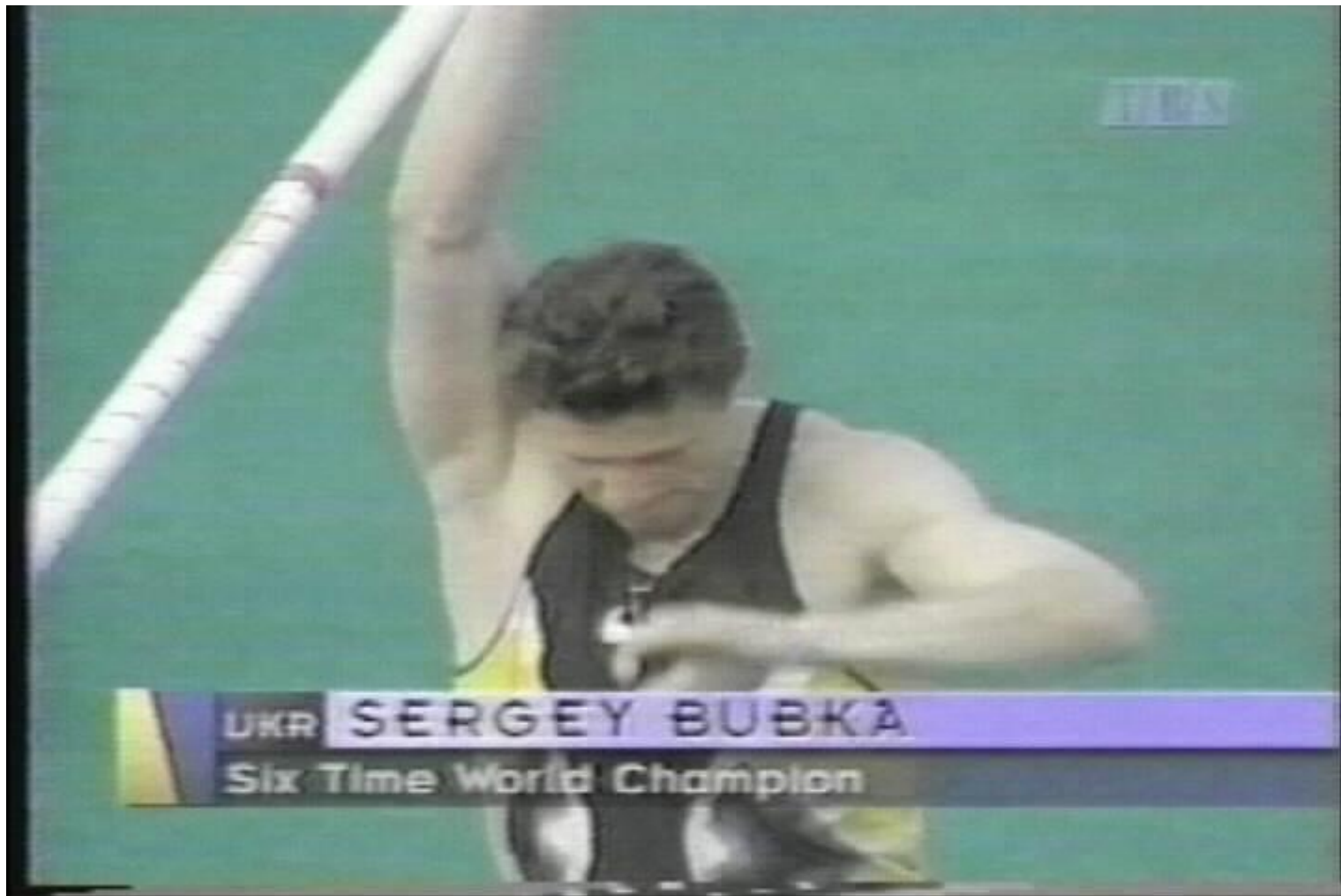
# PUTTING IT ALL TOGETHER!

- ◉ Phases must blend together smoothly
- ◉ Single System Vaulters/Pole Always working together in sync
- ◉ Create! Convert! Conserve! Create Energy on the Runway. Convert Energy during Plant and Take off. Add Energy During the Swing, be in a position to accept all the energy and MAKE THE BAR!
- ◉ KEEP IT SIMPLE!

# PUTTING IT ALL TOGETHER



AND AGAIN...



# TEACHING PROGRESSION

- Learn on the Horizontal! Teach Pole Speed from Day 1!
- Stalls → Over the Tip Drills → Sand Drills
- Connection Drill → 2step, 4step, 6step...
  - Jump over the pole
  - Run, Take off, Swing speed must all blend!
  - Adjust grip to match pole speed.
  - Challenge Grip on a stiff pole, Make the pole move fast with a higher grip
  - Gradually move up till the pole starts flexing
  - Continually EMPHASIZE Pole Speed



# STALL



# SAND JUMPS



# CONNECTION DRILL



# TEACHING PROGRESSION

- Approaches off Runway.
  - Tape Box → Towel → Sliding Box
  - Be Detail Oriented, Teach HERE! Take Off Plant Take off Spot. Use this to teach good Habits away from the pit.
  - Practice your full Approach Early on even if your not jumping from it yet.
- Progress short jumps with your training plan.
  - 6 Steps, 8 Steps, 10 Steps, 12 Steps, etc...
  - Always have a go to short run to fix technical issues

# COMMON ERRORS

- Long Slow Last Step, Decelerating Into Take-Off
  - Large Bend, small penetration, slow pole rotation
- Low Plant, Pulling on Pole at Take off, Leaning Back at Take Off, Taking off Under
  - Large Bend, Top of Pole Sinking, little penetration, slow pole rotation
- Pulling during the swing, Tucking the leg and shortening swing.
  - Pole Rotation Stops during swing, Pole never gets to vertical, athlete fails to get inline with pole.