CARNEGIE MELLON APPROACH
To DISCUS
By
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2020 USA Olympic Men’s Throws Coach
Carnegie Mellon University
Head Men’s & Women’s Track & Field Coach
CARE

DEVIN CROSBY; AD @ LYNN UNIVERSITY

- CONNECT
- ADOPT
- REST
- EXCELLENCE

TOGETHER, PASSION, GRIT, DRIVE, COMMIT
U.S. DISCUS LEGENDS

• John Powell, Jay Sylvester, Mac Wilkins
KD, ME, MASON FINLEY
CMU LIMITATIONS

• 24 Weeks
• Wt Room (Wt Workout)
• Facilities (Video)
• Multi Sport Athlete (Video)
• Academics Athletic Ability
  – Len #234 171’3”
Testing

• Quadrathlon
  – Overhead Backward Shot Throw, 30m sprint, standing long jump, standing 2 foot 3 jump
  - Scoring table, competition, keep records, Comparison with other event groups

• Vertical Jump
• Pull Ups
• Wt Room Maxing
FUNDAMENTAL TALKING POINTS FOR ATHLETES

• Choose an Appropriate Discus
• Hudl technique App
• Watch them throw
• Balance
• Rhythm
• Technique
• Posture

! Physics
– Height of Release
– Angle of Release
– Speed of Release
Two Major Keys

• Balance
  – Left to right
  – Back to Front

• Orbit of the discus
  – High point in throw direction
The Importance of Rhythm

- Dance Like
- Smooth
- Flowing
- This is where athletic ability plays a major role
• Most issues in the discus begin with the wind up. We can control issues with the start of the throw by the athlete understanding how to be on balance, shifting body wt. and most importantly controlling the throwing side.
POINTS TO REVIEW

• Wind Up
• Initiating the Throw (Blocking side and throwing leg)
  - Kitchen Door
• Transition to Center of Ring
• Power Position
• Reverse (Yes or No?)
• Orbit
  – Orbit issues are mostly due to other technical problems.
  At the start: Dropping the arm, too much speed at the start, over rotation due to swinging the left arm or leaning into the start, not maintaining posture and balance throughout the spin all affect proper orbit
  At the finish: trying to hit the disc with arm too early, driving the hips forward without rotating, trying to gather and throw the disc up will all take the disc out of the correct orbit

• Orbit can be manipulated, but be careful, manipulations could produce other negative effects!
OTHER POINTS

• Allow the disc to be a hammer and your arm to be the wire
  – Relaxation through the neck, traps, shoulders, etc
  – If needed, let the disc feel heavy
  – The thrower must feel the implement; must feel separation and elasticity
  – In the hammer, we try to keep our head on the ball, in the disc we would be well-served to keep our head neutral to the middle and on the disc until release
Warm Up Release Drills

- In Hand Turn
- Flips
- Bowling
- Walking Release Drill
STANDING THROW

- Feet Alignment
- Toe/Heal Relationship
- Open Stance
- Close Stance
POWER POSITION – TOE-HEEL RELATIONSHIP

• Blocking foot on center line approximately in line with the instep to heal of the Throwing foot
STANDING THROW

- Heel Movements
- Bottle Drill
- Squash the Bug
STANDING THROW

- Weight Shift
- Rocking Chair
- Ski Jumper Position
- Non Reverse Throw
- Reverse Throw
**THE WHEEL OR MIRROR DRILL**

- The Mirror drill teaches the athlete to turn from the middle of the ring where the throwing foot lands in a power position.
- Big teaching moment is staying back on the throwing side and not letting the weight shift to the blocking side to early.
- WRAPPING – Blocking Shoulder & Throwing Knee Relationship.
VARIATIONS

- Walking Wheel Turn (Keep Blocking foot tight to throwing leg and be Balanced)
- Non Reverse, Reverse
- Multiple Turns
- Step Drill
SOUTH AFRICAN DRILL

- Lead with Inner Thigh
- Blocking Side Action

- Throwing Knee in Relation to Blocking Shoulder
  - Touch & Go Drill
FLOAT,FLOAT,STING

• Dorothy vs. Gingerbread Man
**DISCUS ORBIT**

- As thrower drives to center of circle discus rises
- High point to the right of the center line
FULL THROW SETUP

• Starting position
  – Posture
• Relate this position to the weight room
FULL THROW

- Feet Alignment
  - Bisect Circle
  - Left Foot on Center

- Body Alignment
  - $\frac{1}{4}$ Turn
  - $\frac{1}{2}$ Turn
  - Full Turn
MAISON FINLEY VIDEO
POSTURE CUES

- "Athletic Position"
- Neutral Spine
- Head Up, Eyes on Horizon
- Level Shoulders
PRELIMINARY SWINGS

- Rhythmic movement to begin the throw
- A thrower may take from one to two preparatory swings
- I teach one and go
BACK OF THE RING MECHANICS
Specific Strength Throws

• Throw Things
• Men-2.5 and 3k discs, 2.5, 3k, 3.5k, 4k weighted balls; 5 or 10# plates
• Women-1.5 and 2k discs, 1.5, 2k, 2.5k weighted balls; 5# plate
HAMMER HELPS DISCUS

• Words from Jud
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ADVERSITY
We Embrace It
We Adopt & Overcome
THANK YOU

• To Sam & the USTFCCCA
• Mike Corn
• To the Coaches that have shared & Taught me so much no matter how small. Great Opportunities to watch coaches and athletes interact.
• All of you for coming and listening
  – I hope you will be able to take at least one thing away from this presentation and make your program and your process BETTER

HAVE A DAY
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