How to Create & Keep Separation

• Separation through upper body discipline
• Lower body efficiency
• Neutral head position
• Maintain torso tension during turn
• Static start for stand throw, pivot and full throws.
• Concept: “Work discus from high point to high point”
• This requires specific flexibility work
Why is Separation Important?

• Enables thrower to accelerate the discus over a longer path and produce longer throws.

• Allows the thrower to use both, linear and rotational forces to produce longer throws.

• Creates efficient discus path and body movement to channel power into the throw.
Separation Anxiety
STANDING THROW

- Wind through proper path.
- Maximize radius.
- Proper posture – draw lines
- Set hips over feet.
- Set release angle with body position / right knee bend.
- Heel to toe.
- Chin moves with chest
- Initiate movement with right foot and left arm.
- No Reverse
PIVOT TURNS
Teach Upper Body Discipline

• Static start, no reverse.
• Maximize radius
• Head and chest stay back
• Head turns in one spot
• Set right hip in front of upper body.
• This body position sets the axis of rotation.
• Hold torso tension until left foot contact!
• Right arm stays on top of left leg, until left foot contact.
Non-Reverse Throws

- Do **not** train athletes to jump!
- Teach the athletes to work the ground as long as possible.
- Learn to accelerate the discus with lower body first.
- Keep the upper body back over the right.
- Establish relationship with the ground.
- Right foot connection with the concrete.
FULL THROW
Wind-Preliminary Swing

- Start young throwers with no wind.
- Prelim swing should be slow big and rhythmic
- Teach them to use lower body first
- Long and loose
- Maximize radius
- Upright posture
- Eyes on horizon line
- Not too fast!
- Chin moves with chest
THE ENTRANCE

• How to initiate movement?
• Shift weight over left foot by bending left knee.
• “Armpit over knee over foot”
• Left arm, left leg system work together.

• Create tension in triangle

• Right leg moves out wide sets tempo

• Knee up toe up right leg.
THE ENTRANCE

• Left knee rotates in and down to center of circle.
• This movement helps set drive angle.
• Right leg sweeps wide and shortens on entry into circle.
• Don’t lead with the head. Chin moves with chest.
• Transition movement begins.
• Upper body slows while right knee and hip move ahead.
TEACHING THE ENTRANCE
Drills

• 360 degree pivot drill. Helps with balance over the left leg.
• Tap around drill.
• Cone drill for right leg sweep.
• Get to the corner concept.
• Armpit over left knee.
• Hit a target with left hand.
Sprint Off the Back

- Left knee rotates in and down.
- Left shin sets drive angle off the back.
- Right leg shortens and drives to the middle.
- Right foot is dorsa flexed.
- The drive off the left is a punch!
- Not a lunge off left!
MOVING TO THE MIDDLE

• Eyes see the sector
• Present your chest to sector
• Right shoulder stays back
• Discus tracks maximum radius out to right side
• Discus path through the middle sets the release path
• Control over-active head and left arm in middle
• Left knee pinches to right knee
• Make every effort to delay the upper body
FLIGHT PHASE

Setting Up The Throw

- “Punch & Pinch” closing left knee to right
- Do not advance right shoulder and head.
- Hang discus out to right side.
- Head and shoulders stay back as right leg and hip move in front.
- This movement sets high point or tilt.
- Keep system together.
- Right foot touchdown and turning.
THE ORBIT
Discus Path

Created When:
• Shoulders & head stay back.
• Right leg and hip drive to the middle.
• Race to move legs and hip in front of upper body.
• Right foot dorsa flexed.
• Land with depth on right leg.
• Left shoulder down when right touches in middle.

Casey is too high in this position. Right foot should be dorsa flexed!
DOUBLE SUPPORT
Power Position

• Get left foot down as soon as possible.
• Upper body inactive until left foot contact!
• Extend working phase
• Left arm and right leg work
• Feel the stretch
• Stay out to the right!
THE FINISH
Blocking Action

• Left arm moves long through high point – bends and stops at side.

• Left leg straightens.

• Push up through ball of left foot.

• Left drives up, out and sweeps back for reverse.
THE FINISH
Right Side Action

• Right foot and knee help turn the hip.
• Right hip moves in front of chest.
• Discus stays back as long as possible.
• Feel the stretch!
• Right side will finish in front of blocking left side.
THE RELEASE

• Hang it out to the right.
• Extend that radius.
• Right eye on the discus at release.
• Hold left side block.
• Get right side all the way through!
• Left foot leaves first.
• Right foot stays in contact on delivery.
• Discus right edge down.
HOW DO THEY THROW SO FAR?

• Flexibility
• Specific Strength
• Very Tall
• Long Levers
• The Non-reverse
• Good technique!
• Working the discus over a longer path
• Drugs??
TEACHING THE ENTRANCE

*Drills*

• 360 degree pivot drill.

• Tap around drill.

• Cone drill for right leg.

• Get to the corner concept.

• Armpit over left – string
PROBLEMS AND CORRECTIONS

Problems:
• Falling to the middle.
• Loosing discus down right sector line.

Corrections:
• Get body weight over left at start.
• Head and left shoulder too involved.
• Landing piked in the middle. Posture to the middle.
• High point up too early.
• Upper body active to the middle.
PROBLEMS:
• Under-rotation to middle.
• Fouling out the front.
• Hopping up off the back. Too much air time.

CORRECTIONS:
• Continuous left knee turning off the back.
• More active right leg at the back.
• Stronger block. Non-reverse training throws.
• Setting and keeping axis.
• Deeper bend and rotation of left knee in and down to the middle of circle.
PROBLEMS:
• Throwing before left is down. Causing flat throws.
• Staying back on right leg at finish.

CORRECTIONS:
• Left arm catch drill.
• Get left down earlier.
• Pivot turn drill: teaches patients.
• Non-reverse throws
• Keep upper body on back ½ of circle.
• Axis of rotation stays in tact.
COACHES: WHAT TO LOOK FOR?

View From Back Of Ring

• Getting over the left with armpit / knee.
• Staying out to the right in drive phase.
• Get power through the discus? Don’t Split.
• Stay into the finish – “right side is the motor”
• Hold Head and direct energy!
• Foot alignment.
• Hips engaged – posture.
• Discus path – setting up finish path.
• Orbit alignment can give you clues to problems.
WHAT TO LOOK FOR?

Side View

• Left leg punch off back / no lunge step.
• Right leg action to middle / knee up.
• Right foot under knee with foot dorsa flexed.
• Land in middle of circle / no lower leg reach.
• Upper-body on back ½ of circle.
• Right leg turning / axis of rotation.
• Left leg block / line up through head.
• Right side through: hip rotation / shoulder to the front.
• Thrower sitting out or losing hips?
• Right foot contact through release.
QUESTIONS?

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https://vimeo.com/ondemand/discus
https://www.youtube.com/watch?v=btENJsZZ2nc