Gia Lewis-Smallwood

- 2001 (C4)
  - 57.76m PB
  - 50.50m - 11th USA
- 2002 (PC1)
  - 52.28
- 2003 (PC2)
  - 54.95 – 9th USA
- 2004 (PC3)
  - 57.88m PB
  - 56.28m – 10th USA OT
- 2005 (PC4)
  - 48.68m – 20th USA
- 2006 (PC5)
  - 49.95m – 13th USA
- 2007 (PC6)
  - 51.10
- 2008 (PC7)
  - 59.96 PB
Psychological Assessment

• Lack of confidence
  – Perform when it counts?
  – Relatively inexperienced
• No mind-body link
  – Lack of appropriate effective system of cues
• Need to toss out the security blanket
• A+ Commitment
• A+ Support
Physical/Training Assessment

• Excellent athleticism
• Good strength levels
• Excellent power capabilities
• Age/training age factors
• Lack of specific training
• Commitment to health & lifestyle
Skill Assessment

• Lack of knowledge of the event
• Lots of cooks in the kitchen
• Used multiple radical (and different) technical models
• Basic tendency towards linear technique
• Achieved results over 57m using three different technical models over an eight year period
• Very inconsistent
2008 Side View

- Leads movements with turning head
- Pendulum action of right leg instead of sweeping
- High & low points of the orbit misplaced
- Poor weight distribution & balance in power position.
- Weak left leg block
2008 Rear View

- Spends a lot of time in pre-throw routine
- Very explosive in the delivery
- Unreliable technique

2008 Results

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<td>NM</td>
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</table>
Stages of Motor Learning

• **Cognitive**
  – Develop basic understanding of concepts

• **Associative**
  – Refine and stabilize technique

• **Autonomous**
  – Automatic performance
Three Phase Plan for Quadrennium

• Phase I (2009-2010)
  – Discovery and Learning
• Phase II (2010-2011)
  – Refining and Believing
• Phase III (2011-2012)
  – Belonging and Competing
Phase I Objectives

- Discovery of abilities
- Establish a technical model
- Build a cue system
- Develop & emphasize consistency
- Be part of the “in crowd”
Phase II Objectives

• Technical refinements
• Stabilize the technical model
• Step up performances
  – Season average
  – Lifetime Best
  – USA Championships
• Gain opportunities to compete internationally
Phase III Objectives

• Automation
• Maintain technique
• Keep the practice environment fresh by using different stimulus
• Improve speed of movement
Considerations for Construction of the Technical Model

- Focus on creating maximum separation in the power position to take advantage of Gia’s excellent ability to accelerate and deliver the discus
- When to create and how to maintain separation
- Need for stable balanced positions
- Establish a model that is simple
Separation (Tension)

- Hip-Shoulder Separation
- Shoulder-Arm Separation
- Track separation at landmark points
  - DS1, SS1, NS, SS2, DS2
Separation Data

Hip-Shoulder Separation of Women Discus Throwers (deg)

Shoulder-Arm Separations of Women Discus Throwers (deg)

Data & Graphs by Bing Yu, PhD, UNC-CH
USATF Biomechanist for the discus
Foundations of the Technical Model

• Posture
  – Upright “stickman” posture

• Balance
  – Critical in executing the turn to land in an effective power position

• Rhythm
  – Control movements (slow-fast) for proper sequencing

• Separation
  – Focus on separation in the power position

• Blocking
  – Braced left leg and stopped left shoulder

• Flight
  – Wide radius of the throwing lever
  – Control the angle of the release
Whole-Part-Whole Method

- Whole
- Stand Throws
- Half Turns
- Turning Drills
- Ring Awareness Drills
- Full Throws
- 360 & Go Throws

September 2008
Phase I Throwing Sessions

- Periodization of drills/throwing
  - Drill intensive early in the year
  - Full throws are the majority of the volume of attempts late in the season
- Focused Throwing Session
  - “Pass the points!”
  - Build a system of cues
  - Stay on task
- Range Throwing
  - Use of range of 70-80% effort
Stand Throws
Half Turn
Turning Drills
Awareness Drills

- Landmarks
- Focal Points
Full Throw Imitation
South African
360 Turn & Throw
Considerations For Competition

• Establish routines (Warm up protocol, during competition, etc.)
• The speed-accuracy trade off
• Rhythm of warm ups and competition should be controllable and consistent
Phase I Basic Model
2009 Pre Classic
2009 Post Season Evaluation

- Learned basic concepts
- Consistency - only one meet below 56m (rain)
- New PB 60.32
- Placed at USATF
- Conquered Eugene

2009 Results

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</table>
Phase II – Technical Refinements

- Increase separation (tension) especially in the power position
- Adjust orbital path and arm angle at release
- Generate more vertical velocity
- Blend linear and rotational drills & movements
- Improve rhythm with a more fluid backswing and entry
Gia’s Separation Data

**Hip-shoulder Separation (deg)**

- Gia
- Elite over 65 m

**Shoulder-arm Separation (deg)**

- Gia
- Elite over 65 m
Strategy To Create Separation

- Sweep of the right leg
- Right leg passes the midline of the body
- Drive off the left leg
- Allows the hips to rotate ahead during flight phase.
South African

Cues

• Sweep the right ahead
• Pass the “point”
• Get off the left
• Get up in the middle
• “Flip the hips”
Orbital Path and Arm Angle
Vertical Velocity

Release Speed

- Gia
- Elite over 65 m

![Graph showing release speed comparison between Gia and Elite over 65 m.](chart)

![Diagram illustrating discus throw technique.](diagram)
2010 USATF - 62.18m (2nd Place)
65.58m PB
Blending Linear & Rotation Movements

• Working 360 turns along with South African drills.
• Alternate sets of South Africans and full throws
• Varying emphasis (volume of attempts) on linear or rotational movements during the session
2010 Post Season Evaluation

• Only 1 meet under 58.92m
• New PB 65.58
• 2nd place @ USATF
• Earned her 1st opportunity to compete outside of the USA
• 52.92 to open the season in rainy conditions
• Longest season of career

2010 Results

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2011 Goals & Objectives

- Achieve IAAF WC “A” standard (62m)
- Make WC team
- Gain additional opportunities to compete internationally
- Stabilize technical refinements from 2010
- Improved performance in poor (rainy) conditions
- Autonomy
- Take advantage of WC opportunity to prepare for 2012 OG
2011 Post Season Evaluation

• Not ready for autonomy at start of 2011
• Performed well in adverse conditions
• Gained international experience
• 3rd @ USATF (WC selection)
• Short of WC final goal (15th)
• 4th place at Pan Am Games
• Health and conditioning became an issue for the first time

2011 Results

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2011 IAAF World Championships

- Village environment
- Practice sessions (autonomy)
- Warm up protocol
- Marshaling
- Emotion of walking in the stadium
- Performance
  - Sector foul
  - 56.91
  - 59.49

3rd qualifying attempt -59.49m
2012 Goals & Objectives

- Olympic “A” standard
- Make US Olympic Team
- Qualify for Olympic final
- Get on the podium
- Autonomy
- Manage stress
- Rely on basic model for base performances
- Hit the “A” standard early in the season
- Stay focused on goals
- Use experience of WC to prepare at the OG
- Keep sessions fresh
London Preparation

- Focus on basic model
- Mini cycle focusing on specific strength
- Kept busy with moderate to light twice daily sessions
- Practiced in rain
- Simulated warm up and competitive environment in practice
London 2012

Women’s discus qualifying
## Post London Evaluation

### WDT MAJOR CHAMPIONSHIP QUALIFYING ROUNDS

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<td>Q</td>
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OG & WC  60.948  * excluding 1984 OG
OG       61.4629 * excluding 1984 OG
WC       60.50
Last 4   60.9425
2012 Post Season Evaluation

• Endured the early part of the season
• Achieved goal of OG “A” standard early
• Great performance in the rain at Prefontaine Classic
• Poor plan for U.S. Olympic trials final
• **MADE THE TEAM!**
• Good preparation and focus for London

2012 Results

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X 61.44 61.25