Seeing Skiing

Developing a Good Eye

Overview

• How to look at skiers and see what’s going on
  – Movement analysis and evaluation
• Preliminary topics
• A framework for looking at turns
• Examples
Preliminary Topics

There’s More Than One Way

• What are your goals?
• Everyone doesn’t have to ski the same way to achieve the same goals
• Don’t confuse style or aesthetics with functional performance
Communicate Clearly

- Define your terms
- The clearer, the better

What to Watch

- Basic stance
- Action of the skis on the snow
- Motion of the skier’s mid-body
- Asymmetries
**Understand Why the Skier is Doing the Wrong Thing**

- Skiers make the movements they do for a reason
- Identify weak movements
- Figure out what the positive effect is that the skier is getting from them
- Identify better movements to replace it that accomplishes the same positive effect, without the liabilities

**Causes and Effects**

- What you see is often a symptom, not a root cause
- Many visible problems are the result of errors made earlier in this or the previous turn
Causes to Consider

- Equipment
- Morphological factors
- Psychological factors
- Tactics
- Technique

Equipment

- Skis
- Boots
- Poles
Skis

- Length
- Type
- Condition
**Skis**

- Too long or too stiff
  - Demand excessive tip pressure
  - Require big initial steering angles
- Too short or too soft
  - Encourage skiing from the heel
  - Make balance precarious

**Boots**
Boots

- Fit
- Stiffness
- Canting
- Forward lean

Undercanted
- Encourage excessive knee angulation
- Skis slip

Overcanted
- Ski chops and chisels

Too little forward lean
- Skier bends at waist excessively

Too much forward lean
- Skier’s hip are chronically low
Poles

- Too long
- Too short
Psychological Factors

- Is the skier apprehensive?
- Is the skier too aggressive?
- Is the skier overly concerned with style?

Individual Morphology
Tactics
Technique

The Framework

- Divide the turn into phases
- List the things that must happen in each phase
- Discuss the sorts of things you can do to make those things happen
- Determine what the skier is doing to accomplish each of the things that must happen
Phases

- Initiation
- Control
- Completion

Initiation Phase
Initiation

• What has to happen
  – Establish initial steering angle
  – Establish inclination
  – Establish edge angle
What is the Problem, & What Happens?
Control Phase

- What has to happen
  - Balance against centrifugal force
    - Lateral balance
    - Alignment (counter)
  - Control radius
    - Fore-aft balance
    - Edge angle
Completion

• What has to happen
  – Stop turning
  – Get feet to swap sides with your center of gravity

Phases

• Transition
  – Completion
  – Initiation
• Turning
Transition

- What has to happen
  - Complete old turn
  - Get center of gravity from one side of the skis to the other
  - Initiate new turn
Compare & Contrast
Summary

• Choose your words carefully
• When you see something interesting, look for the root cause
  – Look early in the turn
Summary (cont.)

- Consider things in this order
  - Equipment
  - Morphology
  - Psychology
  - Tactics
  - Technique