



# Layering for Winter



## Keeping Warm

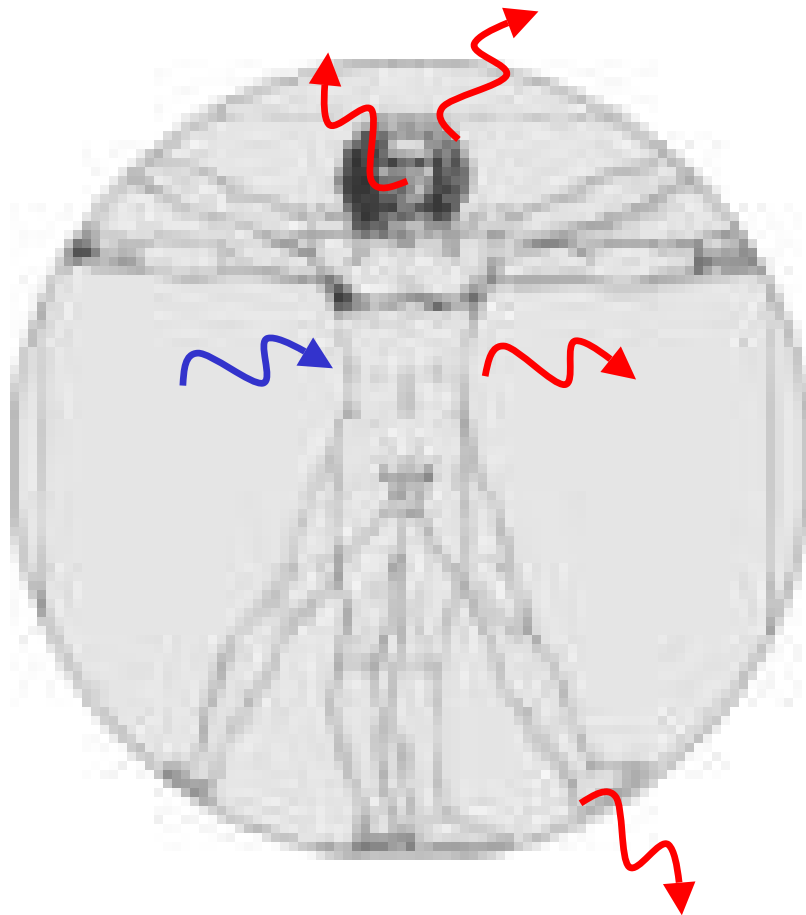
- Heat Loss
- Materials
- Clothing Selection
- Layering
- Sleeping System



# Layering for Winter



## Heat Loss



Where does it go?

- Radiation - put on a hat!
- Convection - get out of the wind
- Conduction - sit on a foam pad
- Evaporation - no exposed skin
- Respiration - put on face mask



# Layering for Winter



## Modern Layering

- Inner Wicking Layer
- Insulating Layer
- Water/Windproof Outer Layer
- No Cotton!





# Layering for Winter



## Clothing Costs

### Basic Layering Costs

Item	Qty	New-Low	New-High	Thrift/Sale	Thrift Descr.
Boots	1	\$100	\$400	\$3.98	Simi Save
Gaitors	1	\$20	\$120	\$25.00	Sierra Trader
Boot Socks	3	\$24	\$60	\$17.85	Sierra Trader
Liner Socks	3	\$12	\$36	\$8.25	Sierra Trader
Briefs	1	\$10	\$20	\$5.95	Sierra Trader
Long Underwear Top	1	\$20	\$50	\$1.49	Nylon Jersey @ Simi Save
Long Underwear Bottoms	1	\$20	\$50	\$7.93	REI Outlet
Insulating Top	1	\$30	\$200	\$2.99	Wool Shirt @ Goodwill
Insulating Bottoms	1	\$40	\$150	\$3.49	Wool Pants @ Goodwill
Insulating Parka	1	\$100	\$400	\$3.49	Poly Jacket @ Simi Save
Shell Parka	1	\$150	\$400	\$3.49	Raincoat @ Goodwill
Shell Pants	1	\$50	\$400	\$9.98	Ski Bib Pants @ Simi Save
Glove Liners	2	\$10	\$10	\$5.86	REI Outlet
Insulating Mitts	1	\$10	\$30	\$0.99	Ski Mitts @ Simi Save
Mitt Shell	1	\$30	\$90	\$14.93	REI Outlet
Balaclava	1	\$15	\$30	\$6.93	Sierra Trader
Watch Cap	1	\$10	\$30	\$5.93	REI Outlet
Goggles/Glacier Glasses	1	\$30	\$150	\$2.50	Walmart + Cardboard

**\$681**

**\$2,626**

**\$131**



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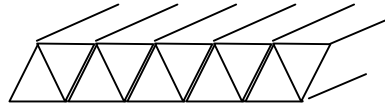


## The Sleeping Bag

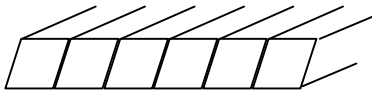
Quilting, single layer



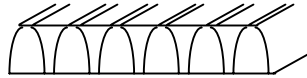
Quilting, two layers



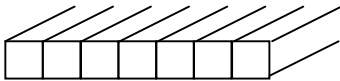
Baffling, V-Wall



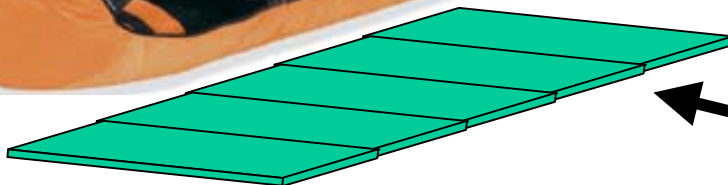
Baffling, slant wall



Baffling, trapezoidal



Baffling, box



- Loft, more is better
- Hood draft closure..
- Velcro zipper closure.
- Draft tube
- Contoured hood, draw string
- Zipper, two way pull
- Fit. Roomy enough

*Very Important !! –  
Insulated Ground Pad*