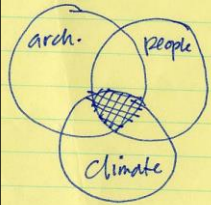


# Comfort as Context



our field of study is defined by the interaction of the three

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Raison d'être for Environmental Control Systems:  
"Provide human comfort."



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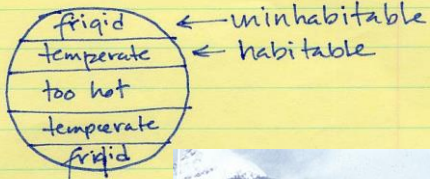
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Weather is not Climate



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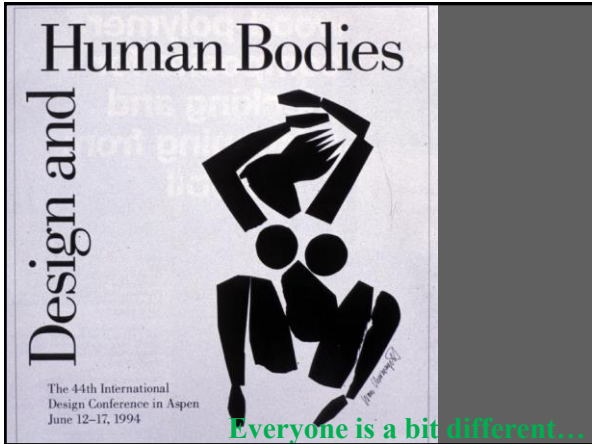
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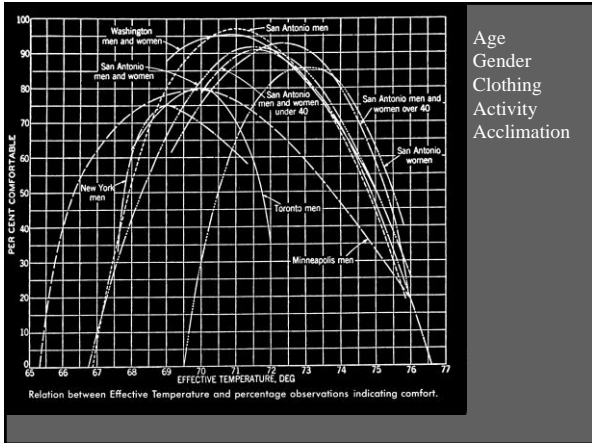
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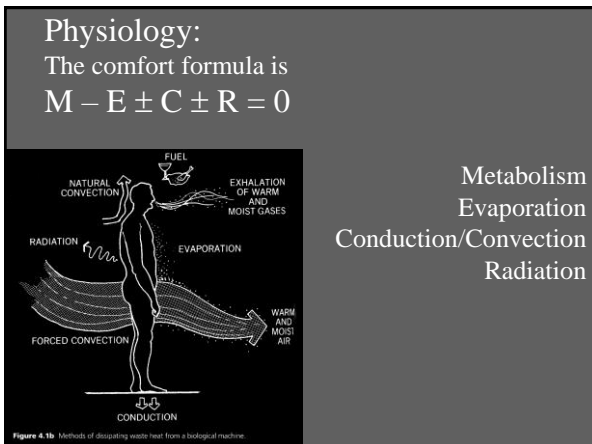
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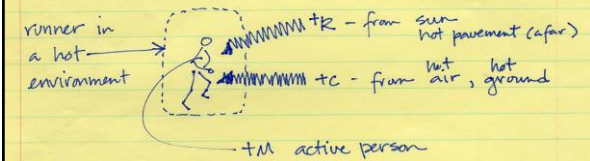
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## Involuntary actions



Sweat to increase E



Shiver to increase M

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Maybe It's Time You Injected Some Monotony Into Your Life.

Monday    Tuesday    Wednesday    Thursday    Friday

Meat and Potatoes

Or

Gourmet Meals

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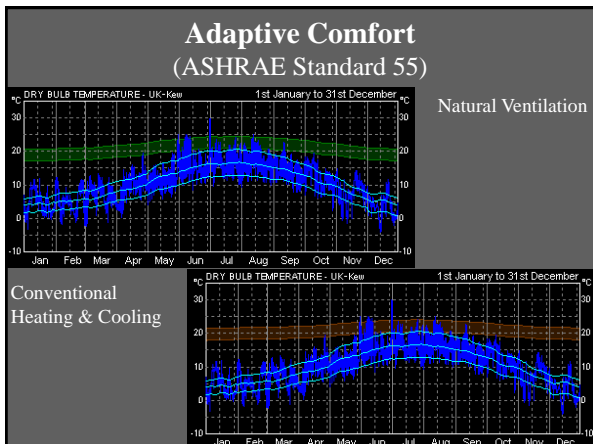
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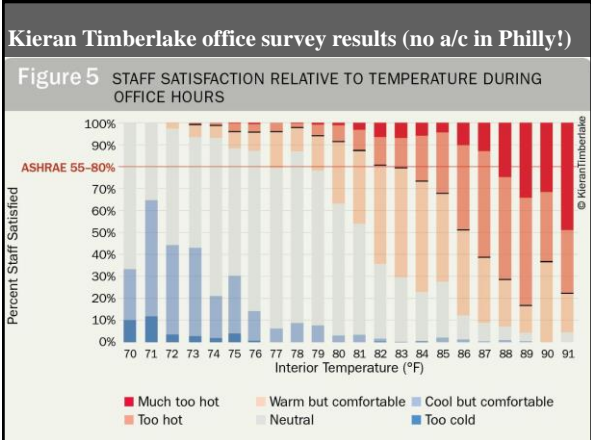
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10

**Measurements:**

**Environmental**

- Air Temperature (°F)
- Mean Radiant Temperature (°F)
- Relative Humidity (%)
- Air Movement (fpm)

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11

**Physiological**

- Clothing Level (Clo)
- Metabolic Rate (Met)

**Psychological**

- State-of-mind

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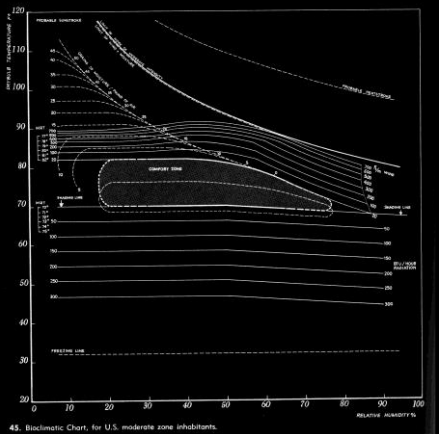
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12

**Bioclimatic Chart**  
Links climate to comfort




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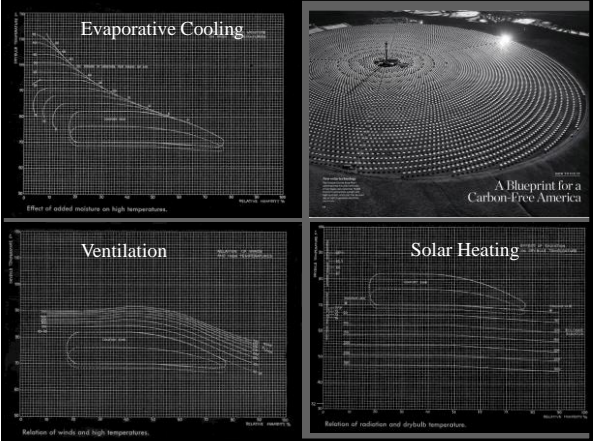
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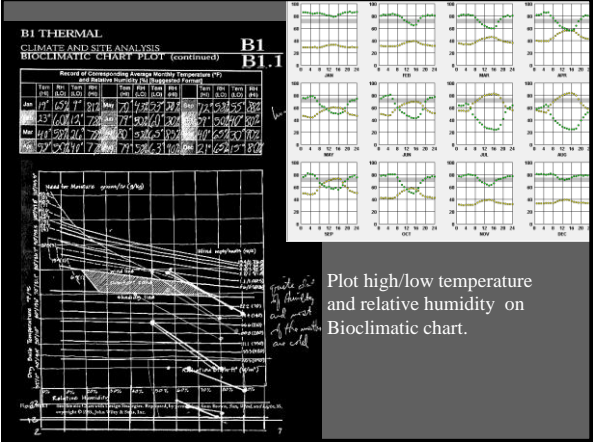
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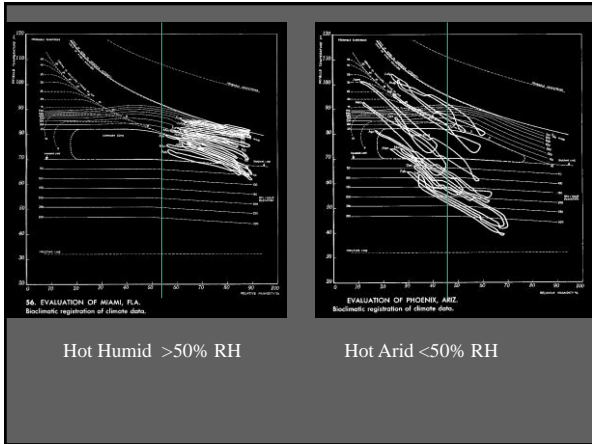
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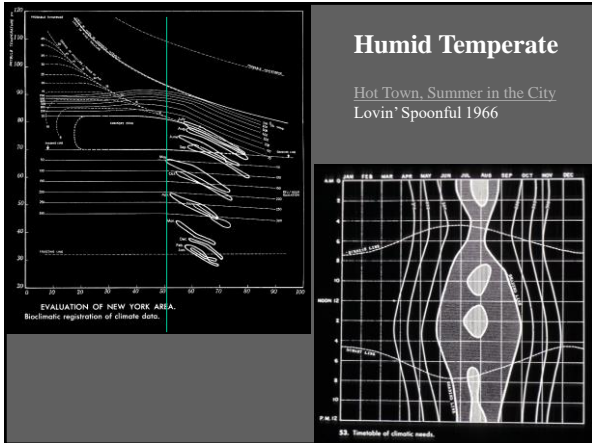
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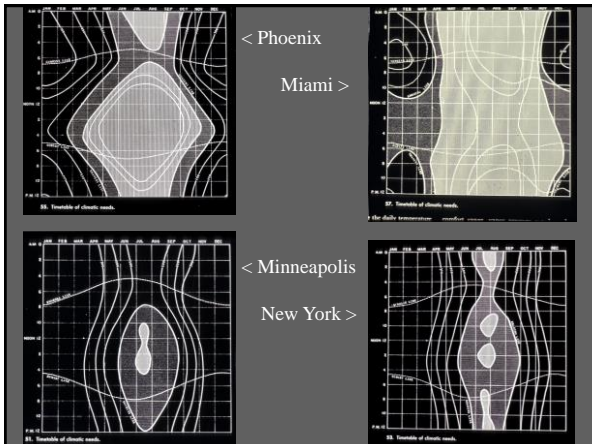
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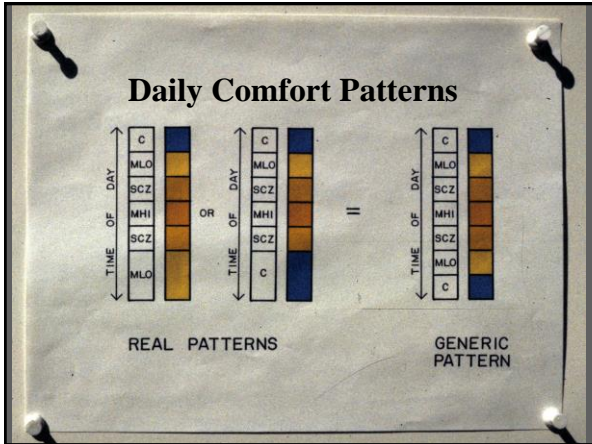
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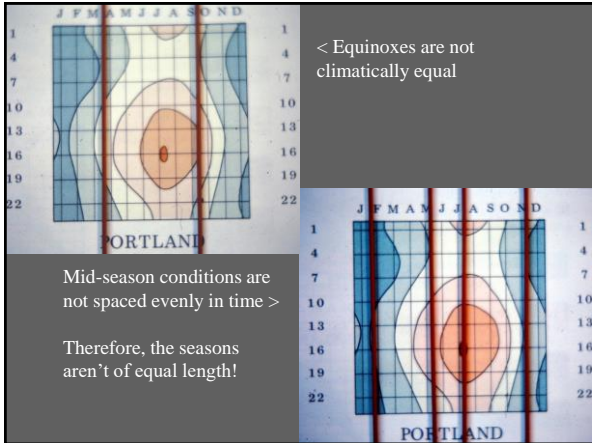
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Mid-season conditions are not spaced evenly in time >

Therefore, the seasons aren't of equal length!

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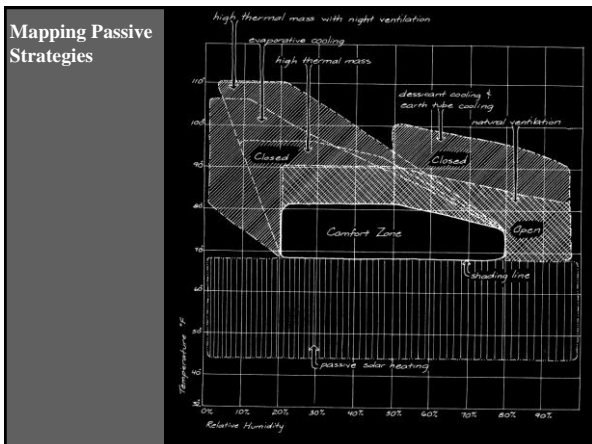
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21

Block sun  
Admit wind  
Reduce Clo  
Reduce Met  
Earth couple



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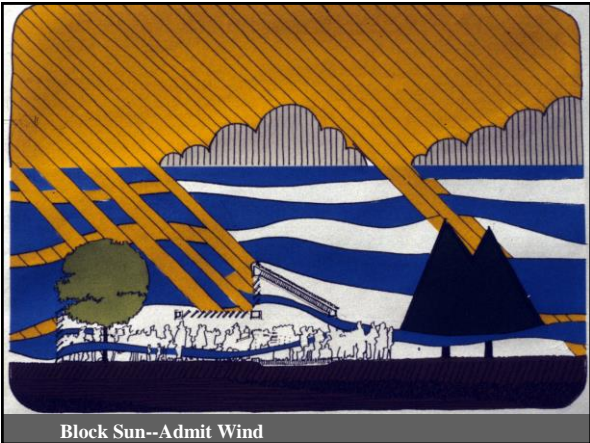
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Block Sun--Admit Wind

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Where is this?



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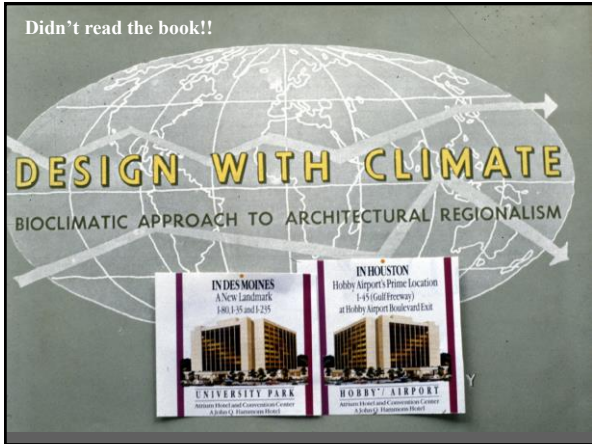
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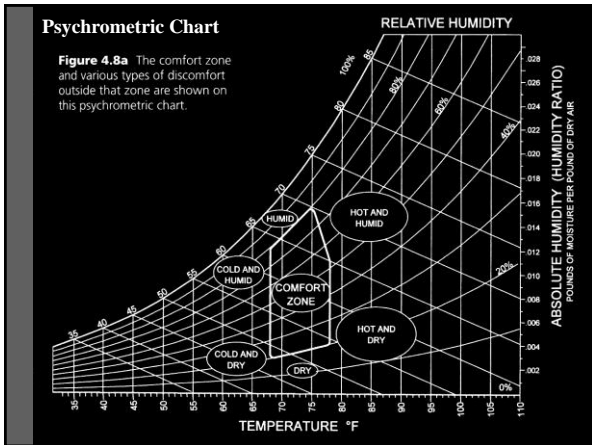
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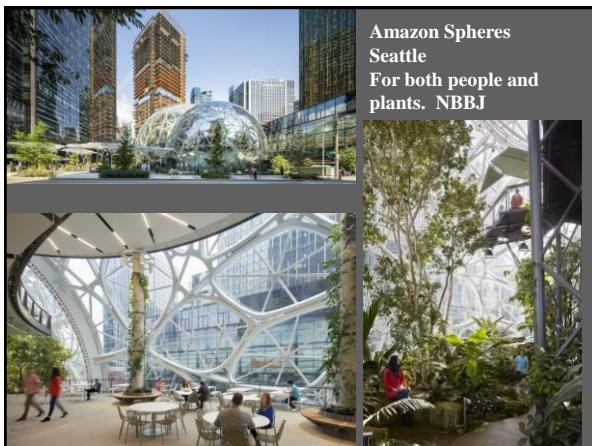
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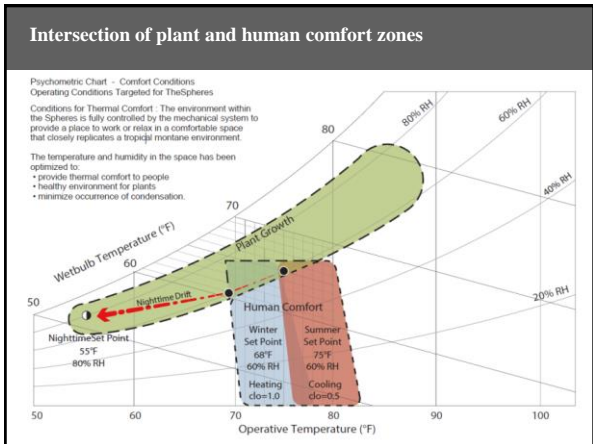
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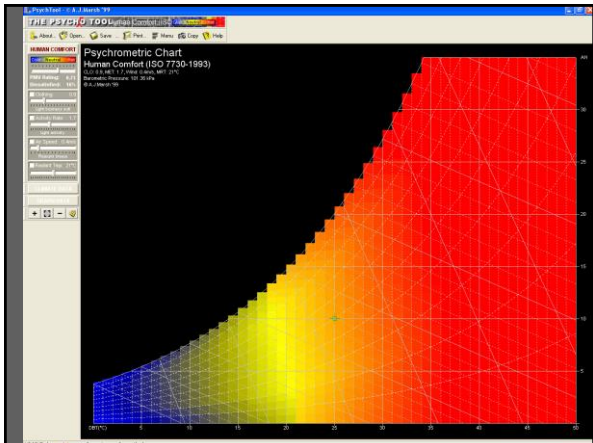
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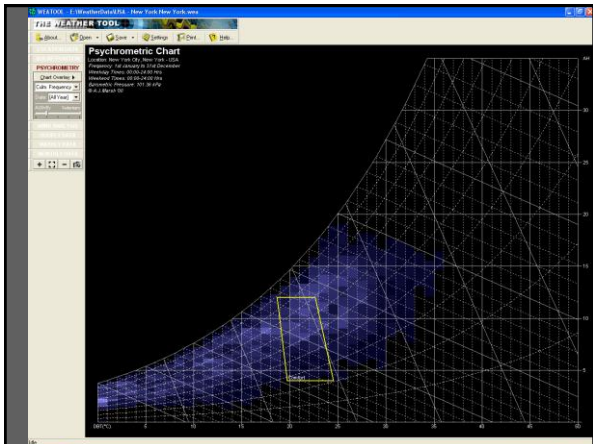
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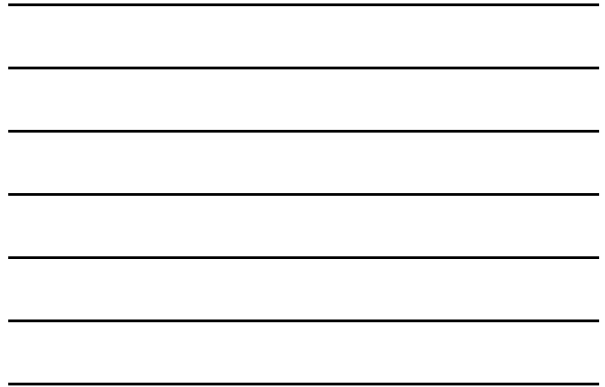
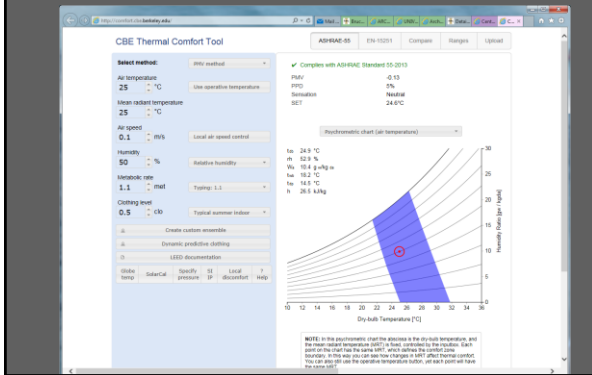
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# Segue to the CBE Thermal Comfort Tool

<http://cbe.berkeley.edu/research/thermal-tool.htm>



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