• Do we have to measure?
• Spatial relation within the whole
• the total visual field
• Visual experience is dynamic: interplay of directed tensions & the invisible center point

• Establishing a correct distance

• The structural skeleton
- Black disk on white square

8 principle directions of space - tendency?

Results: 1. Striving towards edges
   2. Cluster along axis of skeleton
   3. Stability around center
      * Lowest attainable tension level

- "Dead center" is not dead

* Rope Analogy

• Gunnar Goude & Inga Hjortzberg,
  Psychological Laboratory, University of Stockholm
- Repelling forces
  - size of disk and square
  - location within

  *a.* working together
  *b.* unbalanced??

- Psychological v.s. Physical Balance
  - opposite forces
  - trial and error v.s.
    balancing on the tip of the finger
  - hanging the canvas:
    visual center of gravity v.s.
    finger trick
  - photography: the dancer and the model
-St. Michael weighing Souls
  Austrian, c.1470

*the strength of prayer &
the dark patch

-Why Balance??
  -action stands still
  -potential energy = minimum
  -does not require symmetry
- A Test by Maitland Graves

Set 1:  
a. every element stays in its place  
b. equality or inequality?

Set 2: 
a. a kite or a cross-like figure? Adrift in space  
b. reassuring clarity - successful disequilbrium
Weight and Spatial Depth
- weight & location:
  the structural framework
  the center and counterbalance
- “vistas” greater balancing power!
- depth v.s. weight
- volume of empty space in front
Weight & Color

- red heavier than blue
- bright heavier than dark
- black v.s. white: the effect of irradiation
Science & Art of Depiction
Ken Giesecke
Presentation on Balance
Weight & size, intrinsic interest, isolation

- larger the heavier
- subject matter & formal complexity
- the sun and the moon
Shape & Weight
- simple geometrical figures = heavier
*The Graves Test: counterweighing geometries
The influence of knowledge
-understanding materials and construction
Direction
- attraction &
  weight of neighboring elements
- the shape of objects: counterbalancing
  the gravitational pull
Numerous factors acting with and against
- Weight counterbalanced through different forces
- Complexity creates liveliness!!
Homogenous Texture: patterns composed of many units of equal weight
Top v.s. Bottom
- moving away from ct. of gravity
- more weight at the top

*CLASS EXPERIMENT*
- bisecting a perpendicular line
Weight at the bottom

Notre Dame and its rose window
- balancing the vertical & horizontal
- main mass of the façade
Science & Art of Depiction
Ken Giesecke
Presentation on Balance

Right v.s. Left
-Reading left to right, an affect of lateral asymmetry
-Mirrored images: losing meaning
-Ascending & descending diagonals
-Right v.s. left: given 2 equal objects
Emphasizing the left side:

a result of the dominance of the left cerebral cortex
Why bother?

- stabilizing the forces
- striving for equilibrium in all phases
*Freud - the “pleasure principle”

Conclusion: Portrait of Cezanne’s wife
- internal tranquility v.s. charged w/ energy
- scale of increasing slimness
- scale of increasing brightness
- 2 ovals: core of stability