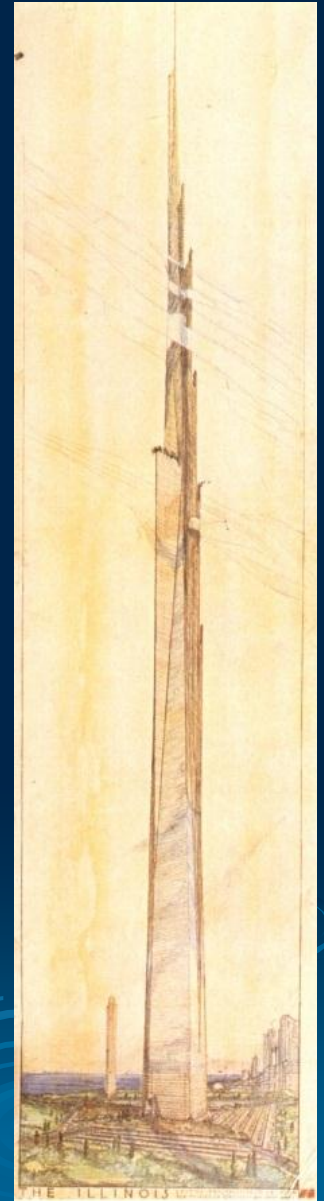


# Why Mud Still Reigns

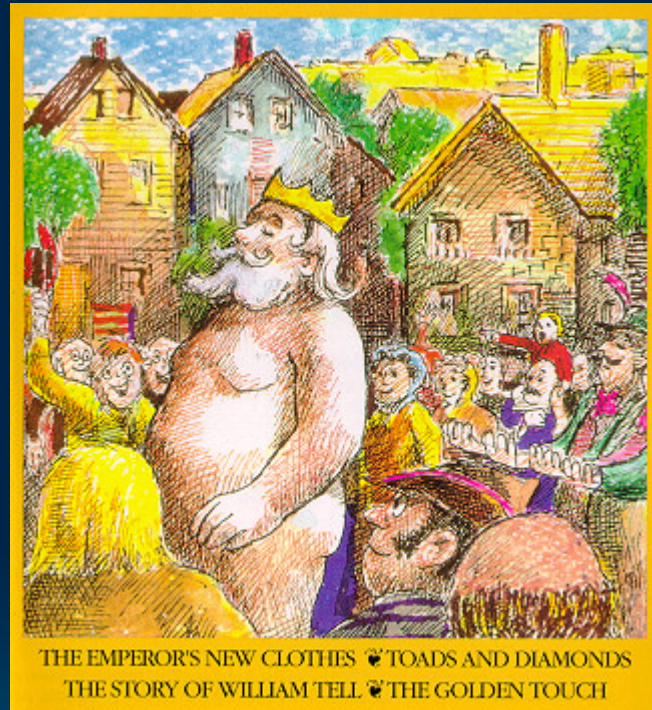
Brian Foote

Wednesday, 11 May 2011

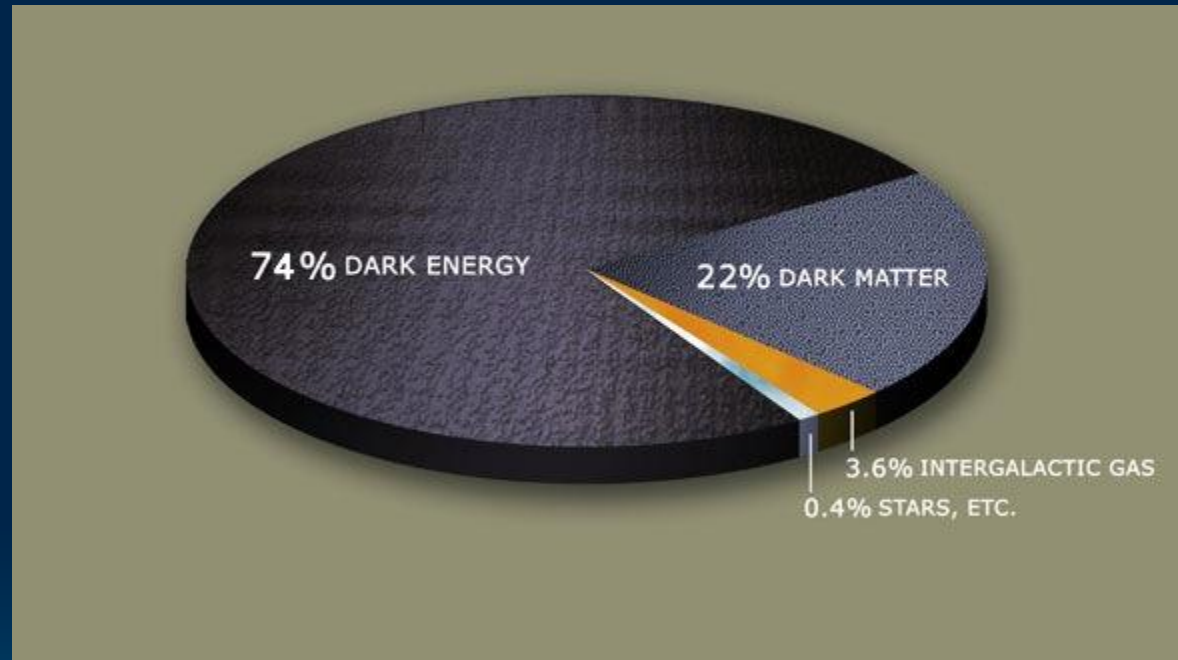
[foote@laputan.org](mailto:foote@laputan.org)



# The Emperor's New Clothes



# The Mystery of Dark Matter



# A Scene from a Nightmare



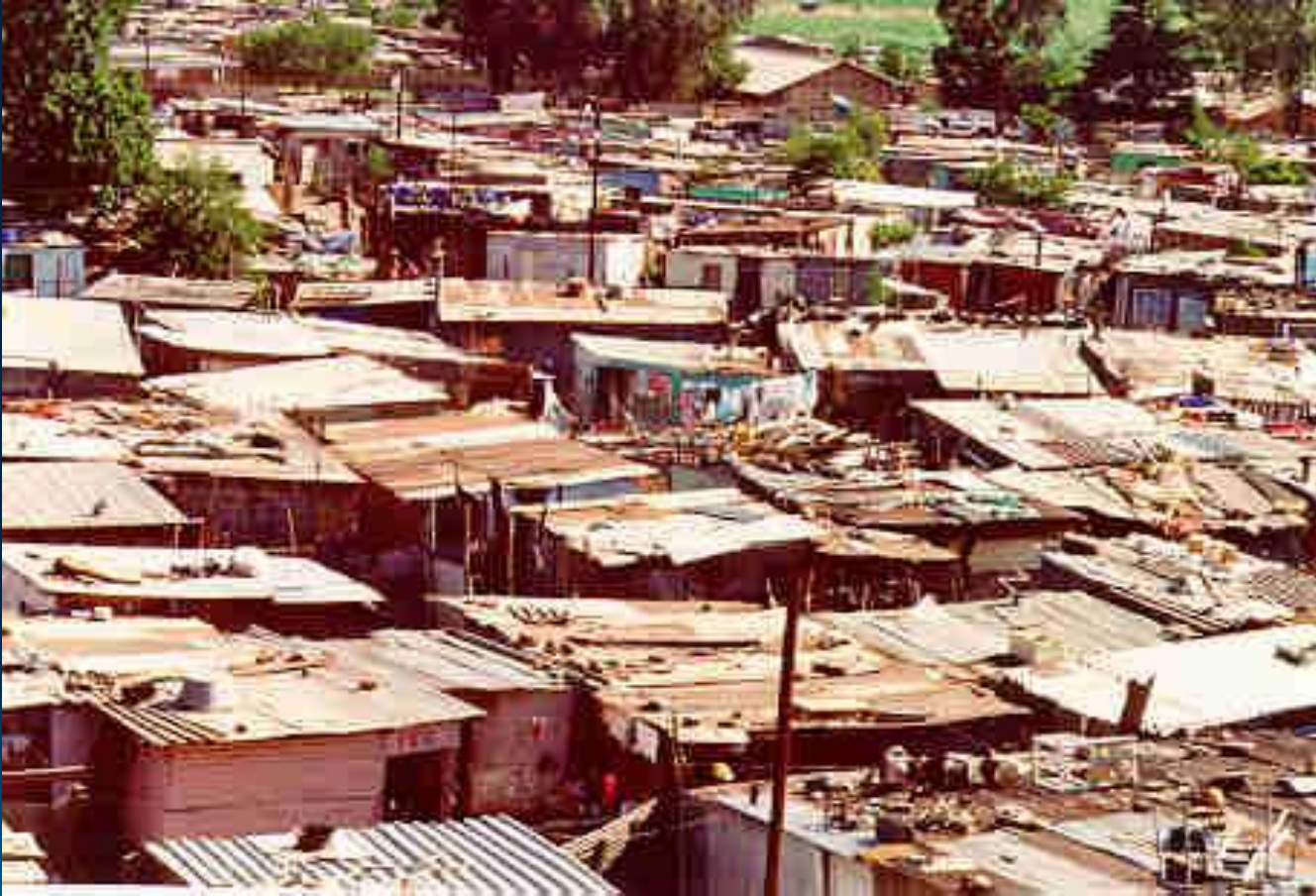
# Computational Clairvoyance



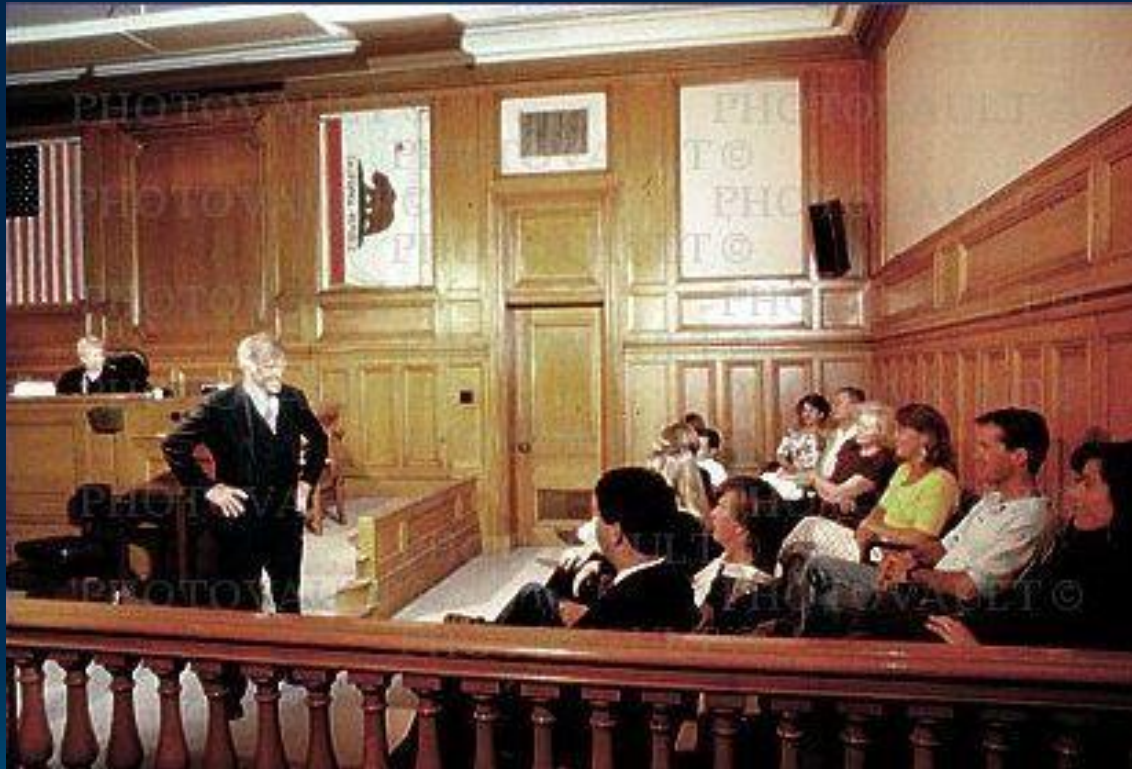
# A Scene from a Nightmare



# Shantytown



# State of the Art





Big Ball of Mud -- 9

The background is a solid blue gradient. In the lower right quadrant, there are several sets of concentric circles and ripples, resembling water droplets or sound waves, rendered in a lighter shade of blue. The circles vary in size and are arranged in a way that suggests movement or expansion.

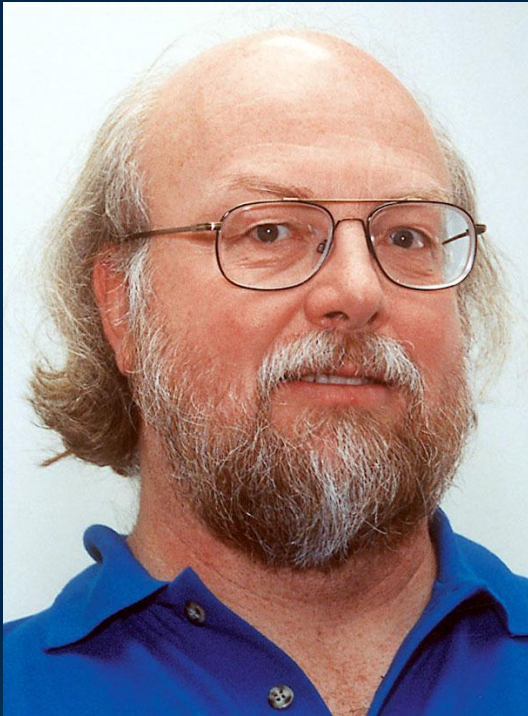
# Golden Calves



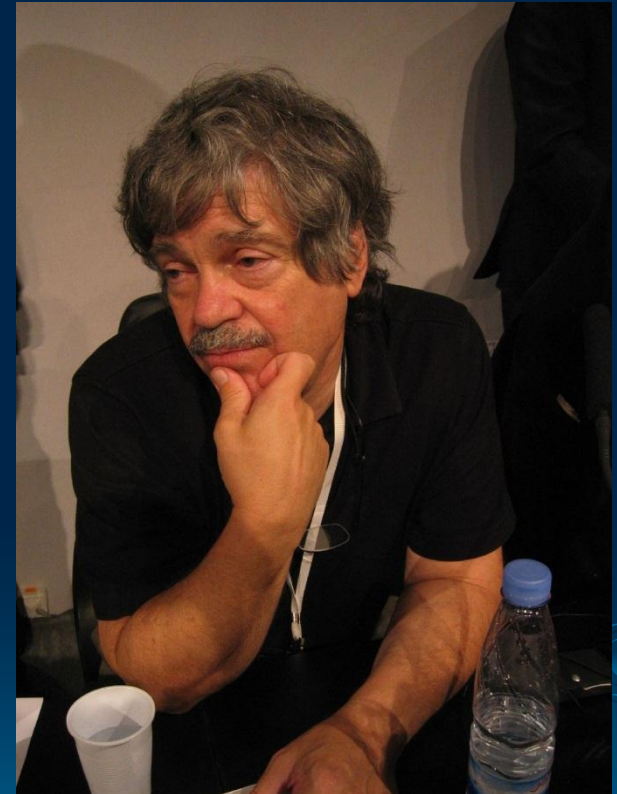
# Reuse



# Objects



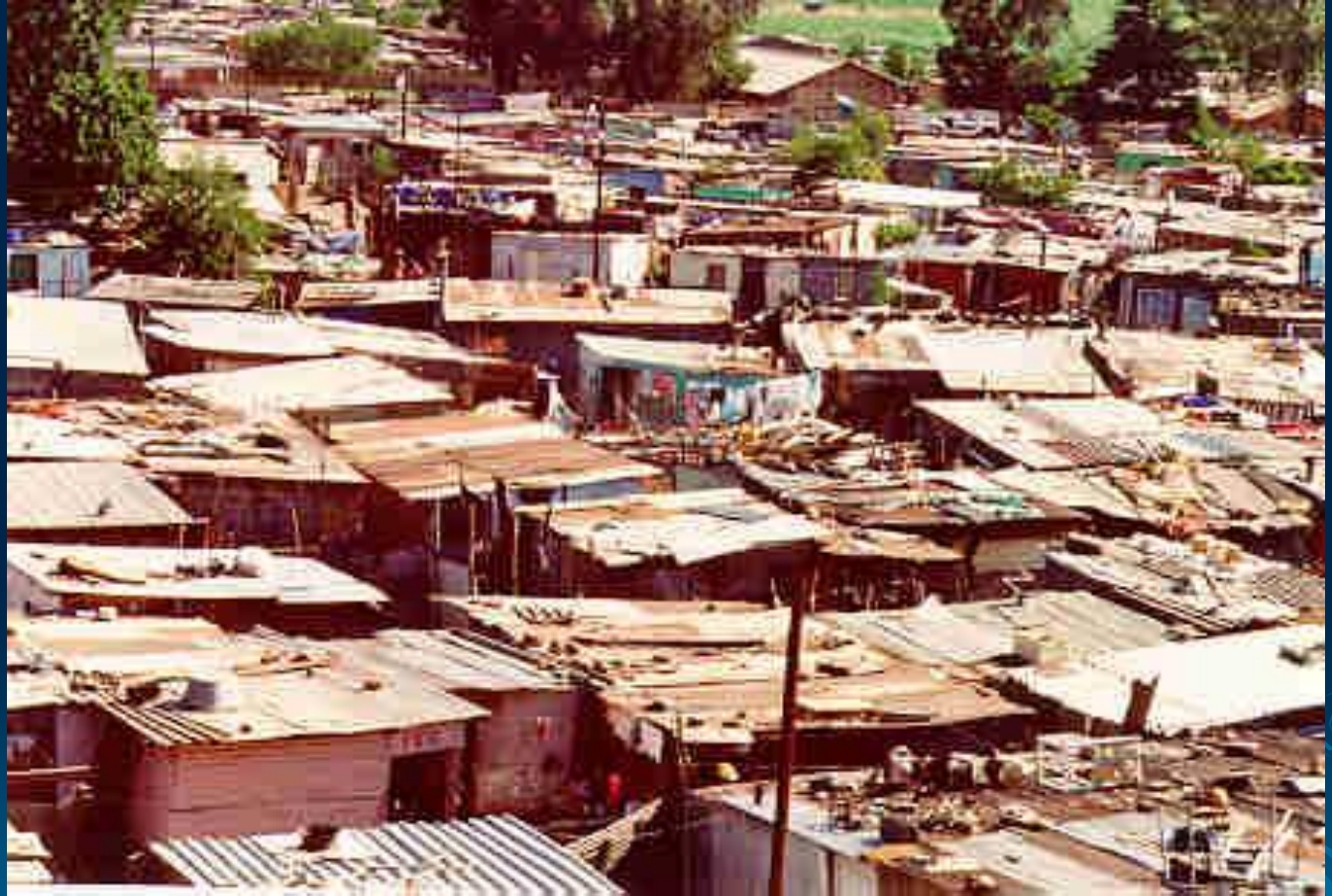
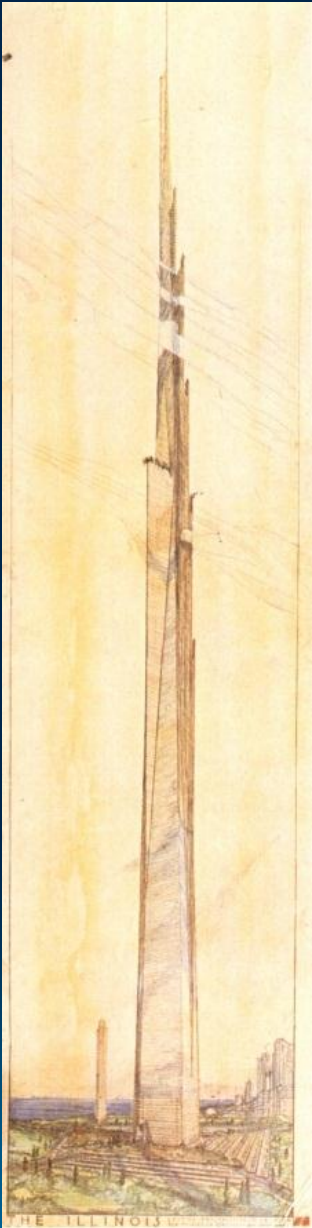
# Objects vs. Relational



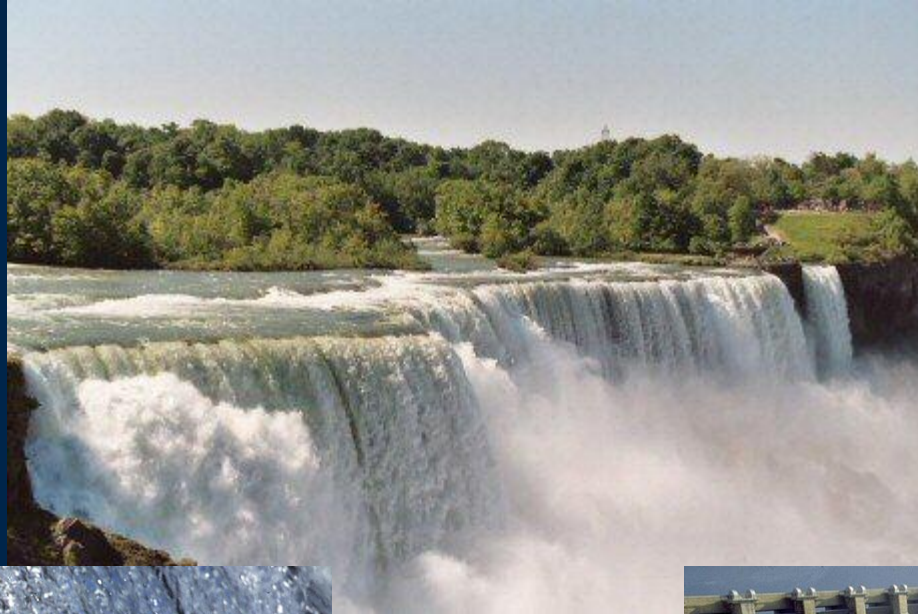
# An Uneasy Truce



# Architecture

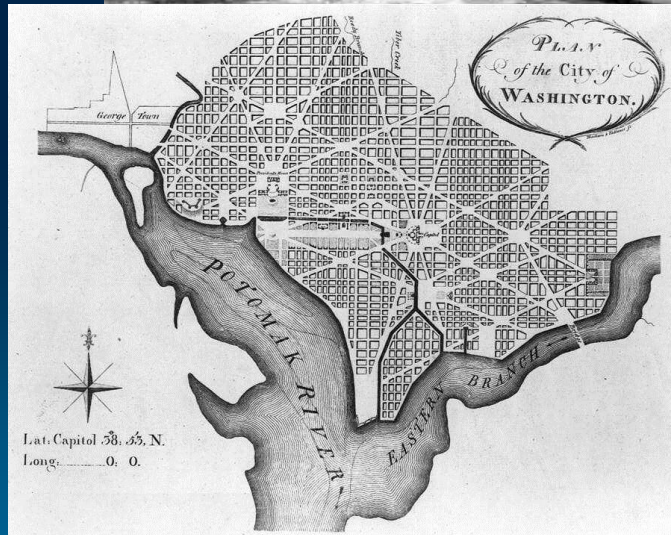


# Waterfall





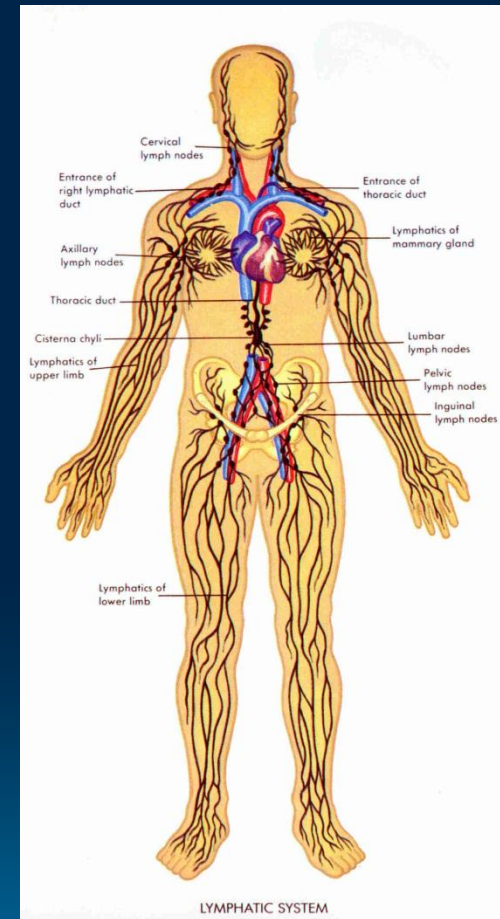
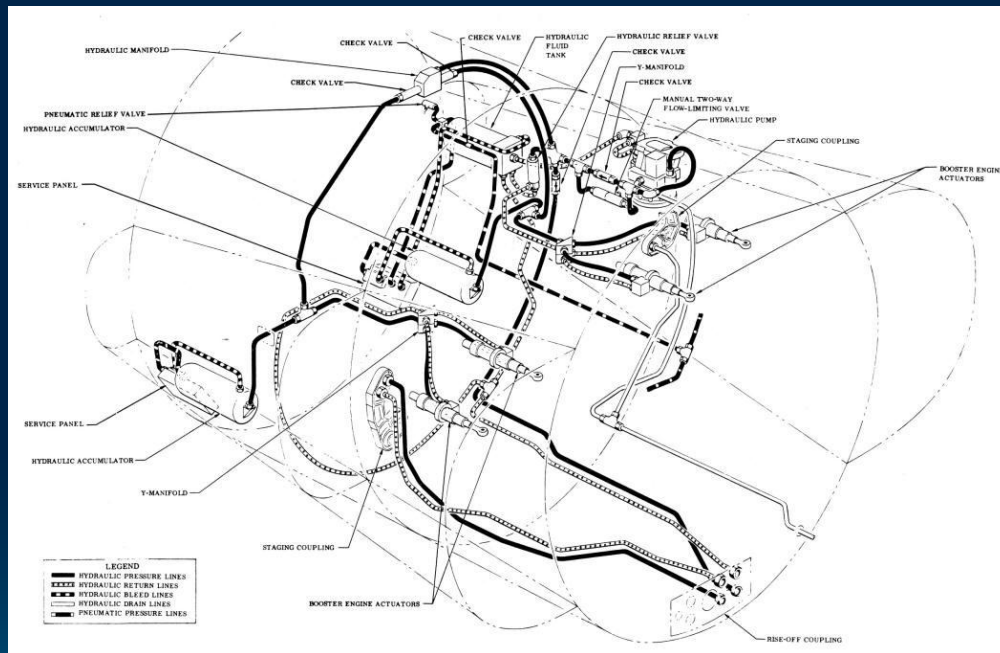
# L'Enfant and Friends



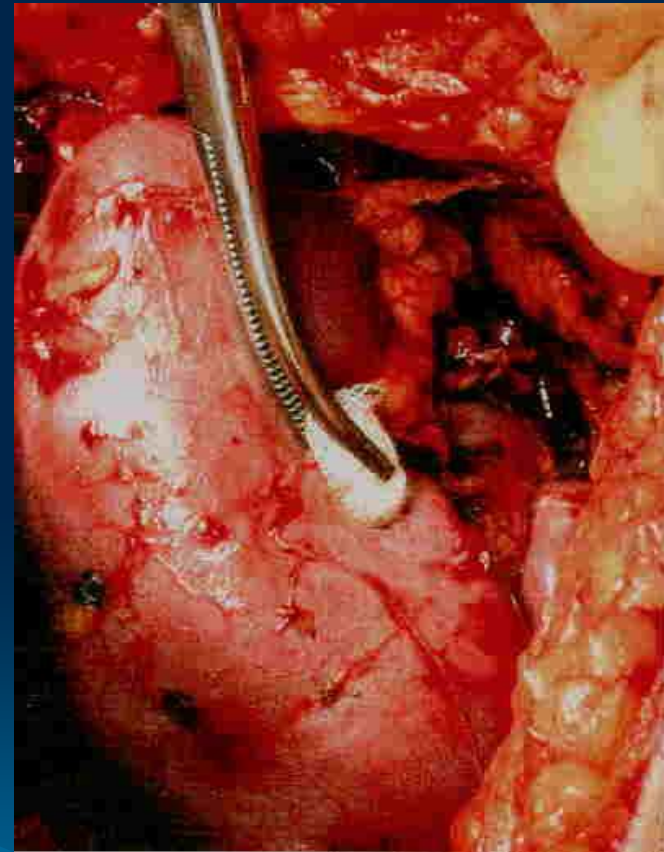
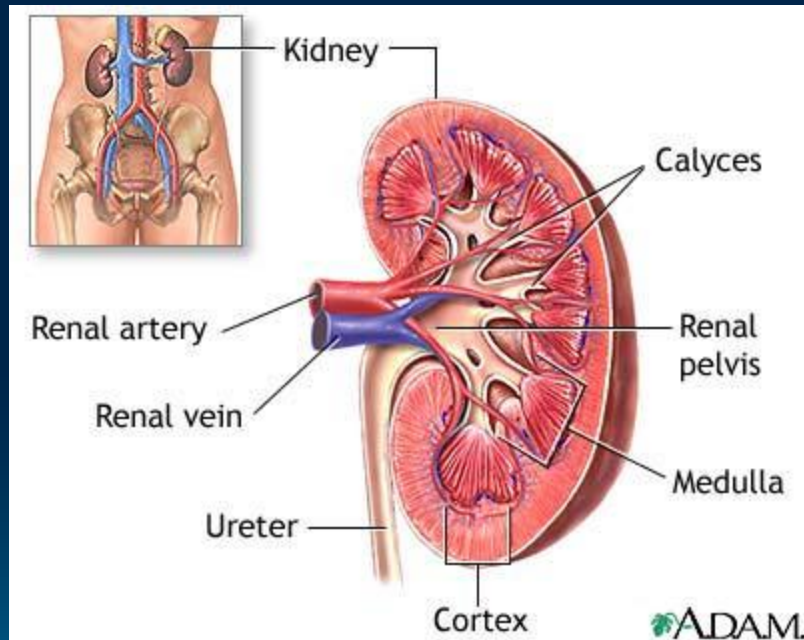
# Modular Housing



# Subsystems



# Modularity



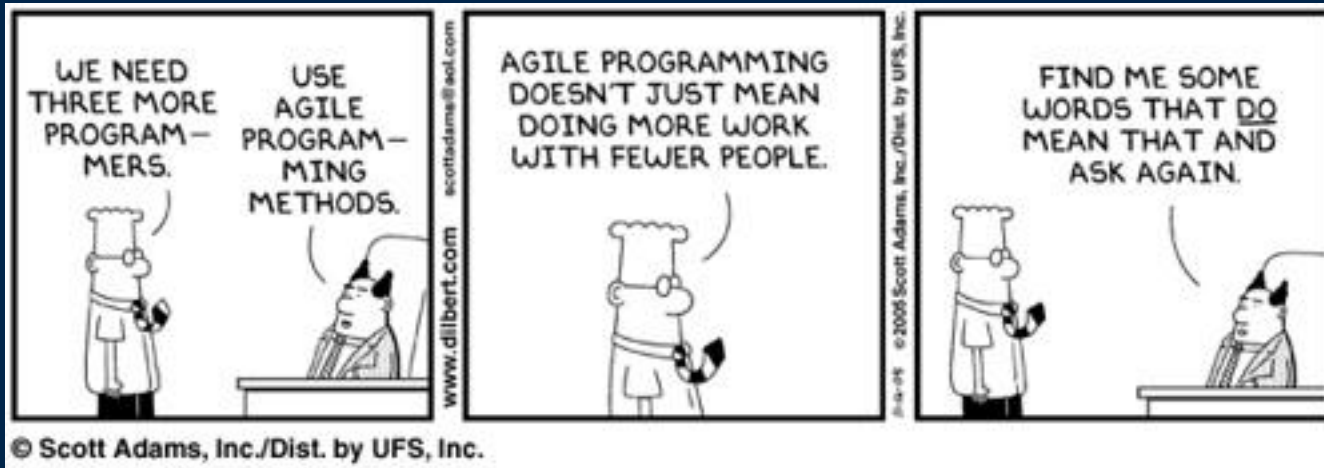
# Mud and Modularity



# Agile



# Lean vs. Craft

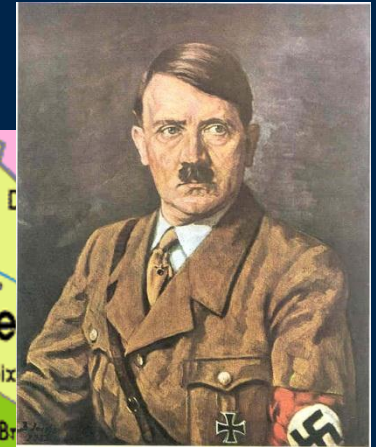


# Sufficient Design

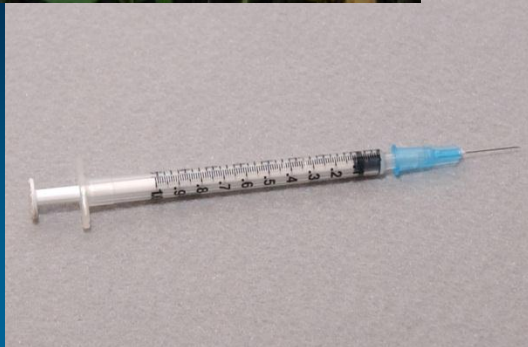




# Agile Ike

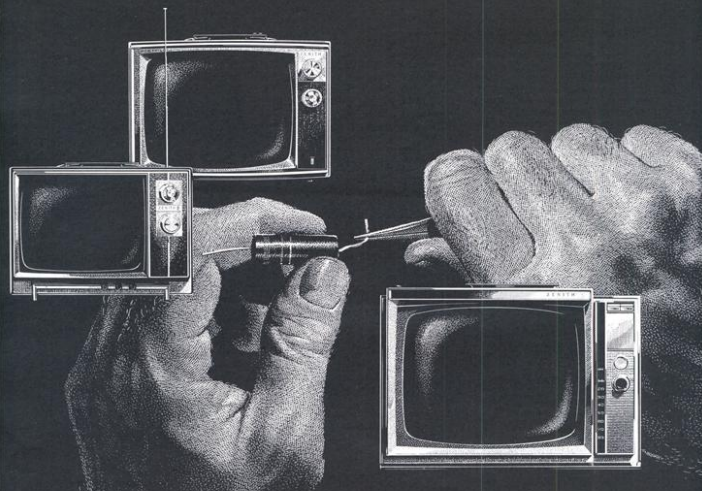


# Correctness



# Quality

**BUILT BETTER**  
...to last longer!

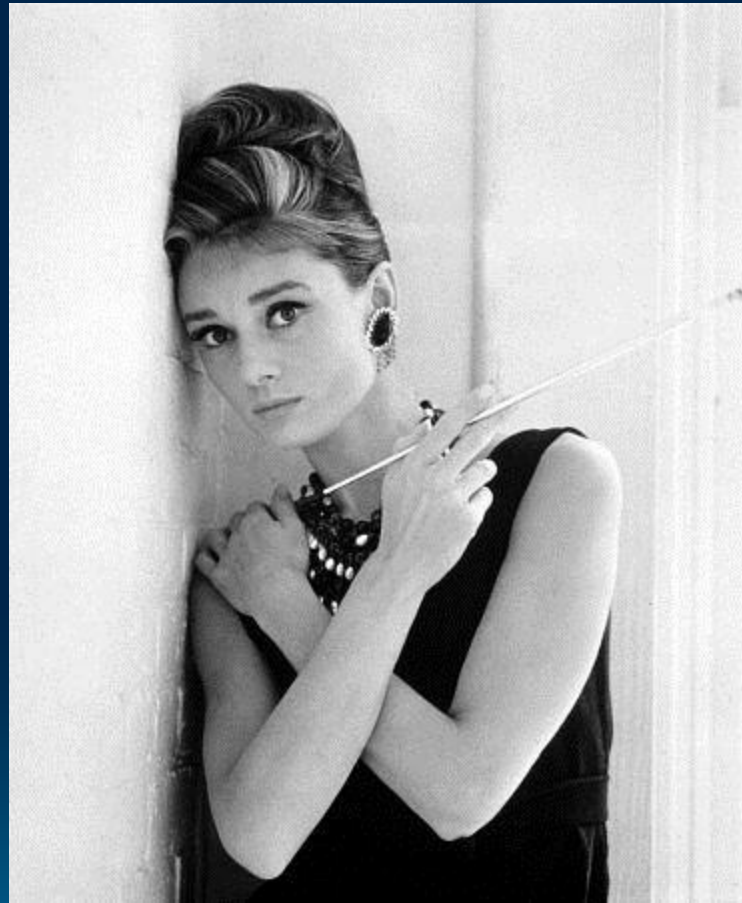


Every Zenith portable TV is Handcrafted — built better to last longer. There are no printed circuits. No production shortcuts. Every connection is carefully handwired. This kind of dedication to quality has made Zenith America's largest selling TV. It is one of the important reasons why Zenith TV gives you finer performance. Fewer service problems. Greater operating dependability. And a sharper, clearer picture, year after year. Don't settle for less than Zenith—the Handcrafted TV.

**ZENITH**  
The quality goes in  
before the name goes on



# Elegance



# Healthy Internals



# Gargoyles



# The Craftsmen



# Scavengers





# Dumpster Diving



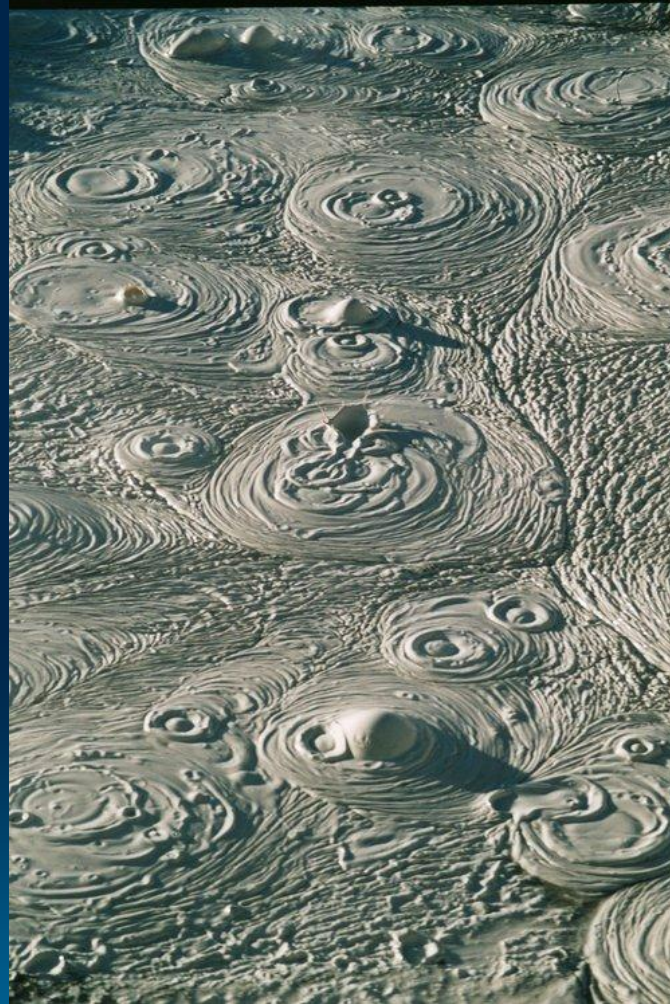
# Post-Modern Programming



A decorative graphic in the bottom right corner of the slide, consisting of several concentric circles of varying sizes and colors (shades of blue and teal) that resemble ripples in water or a stylized globe. The circles are arranged in a cluster, with the largest one in the center and smaller ones around it.

Big Ball of Mud -- 35

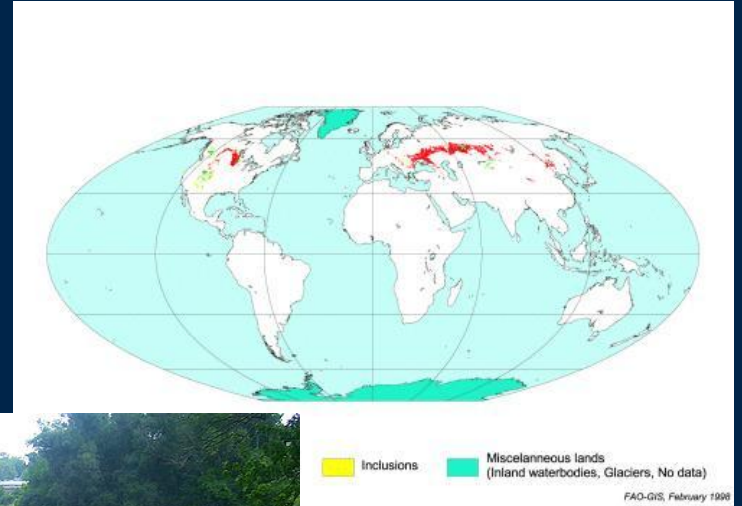
# What is Mud?



# The Formula



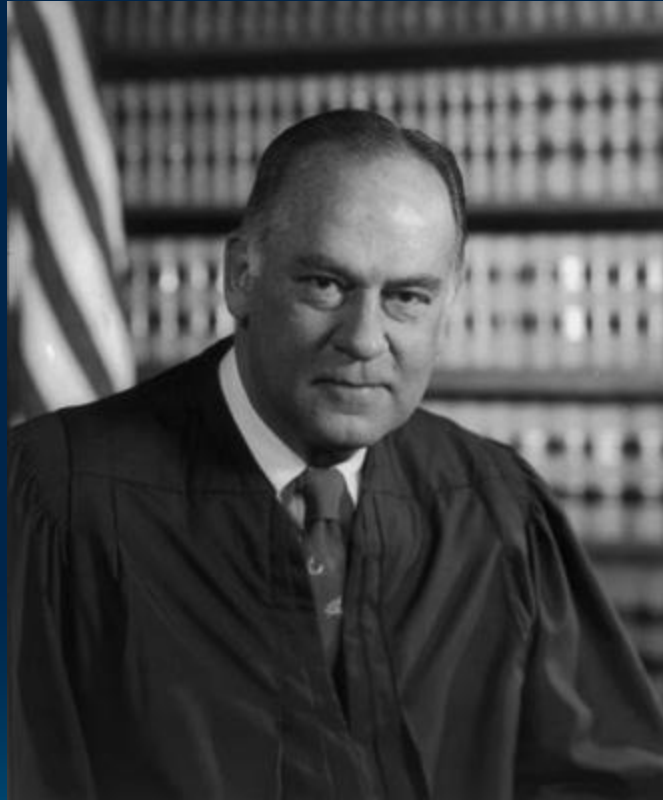
# Chernozem Soil



# A Rorschach Test



# Potter Stewart



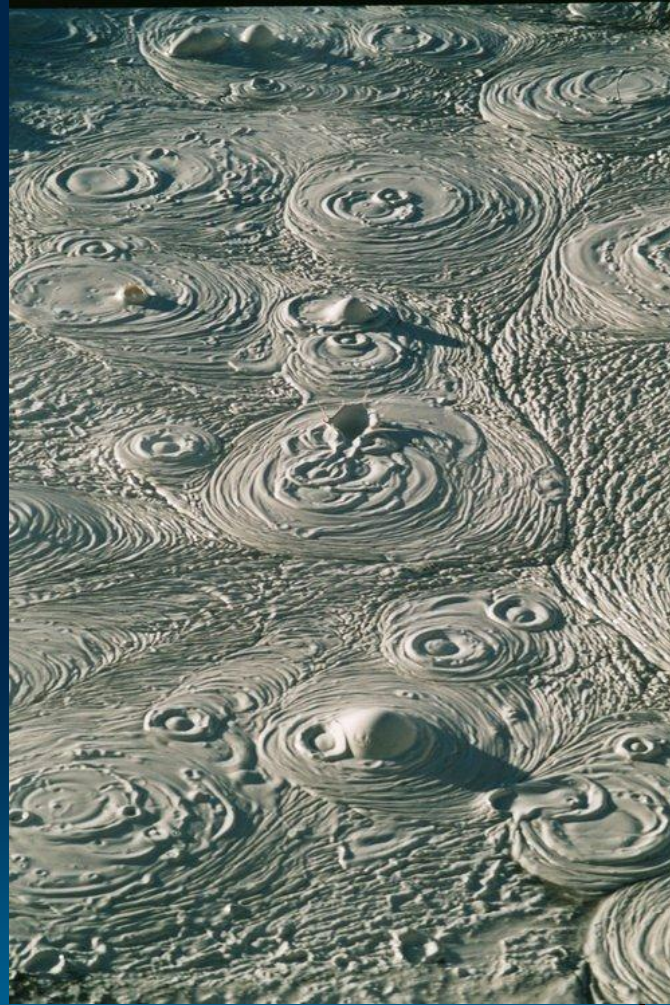


# Legacy == Mud?



Big Ball of Mud -- 42

# Where Does Mud Come From?



# Messy Kitchen



# Disposability



# Software Decay



# Maintenance



# Below Average Programmers





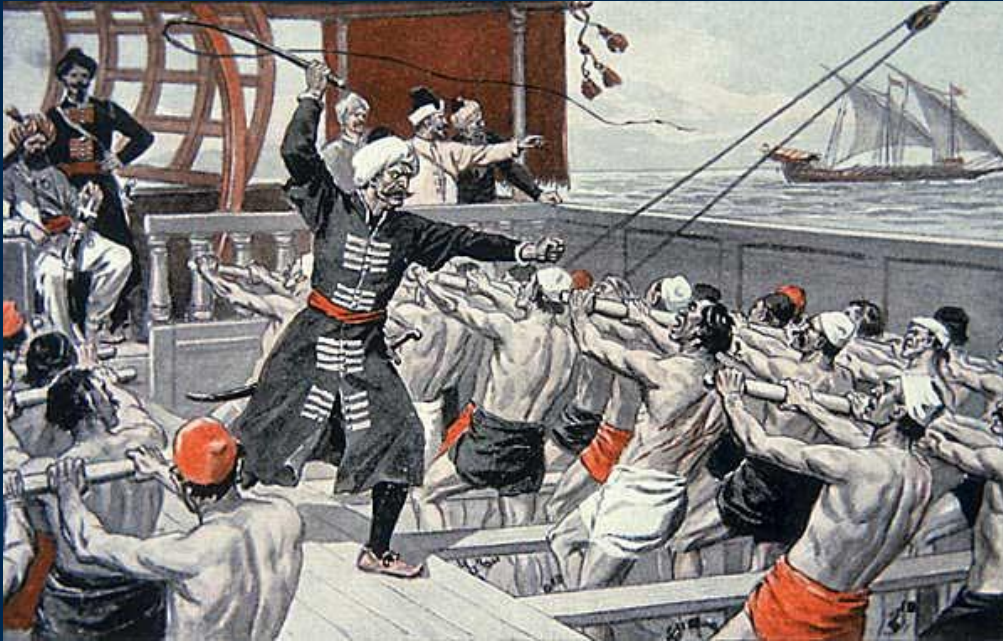
# Above Average Programmers



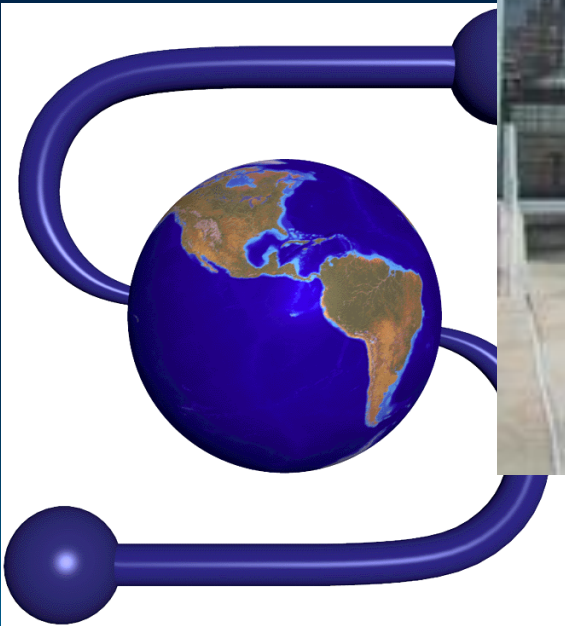
# Below Average Managers



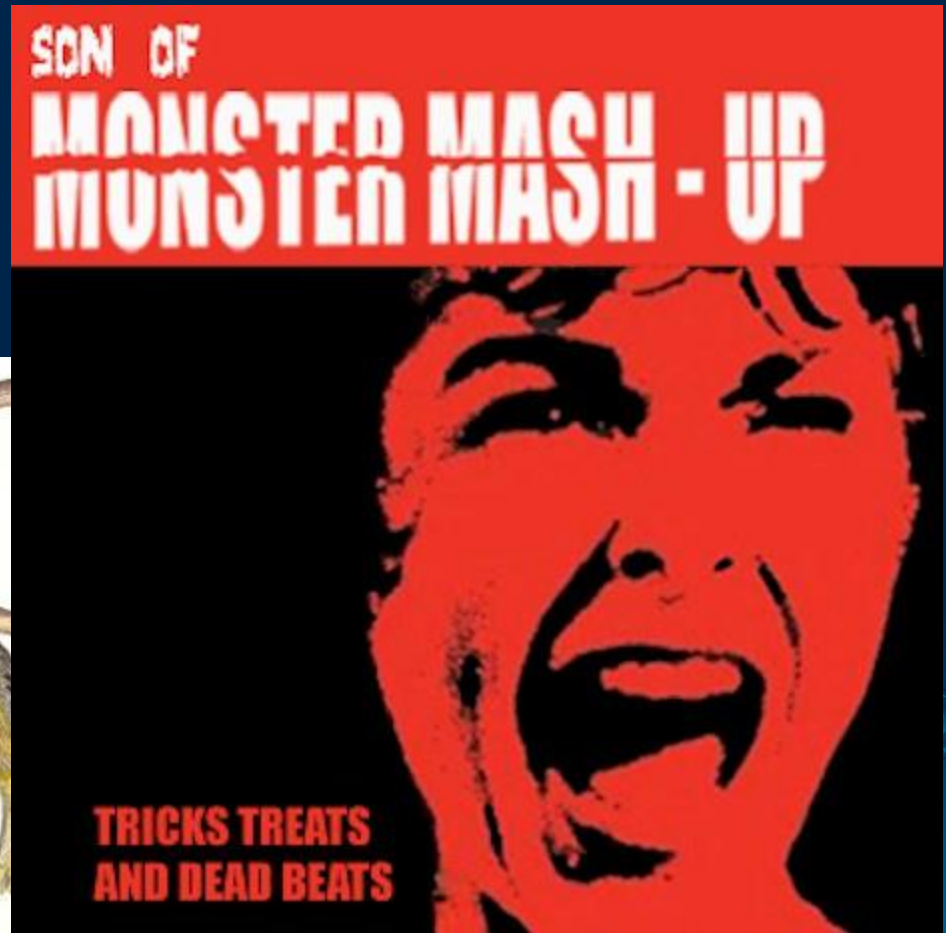
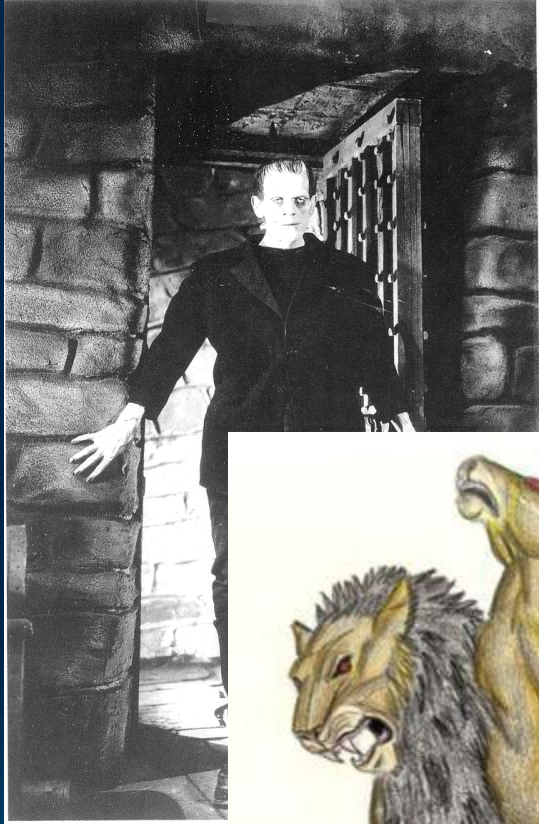
# Above Average Managers



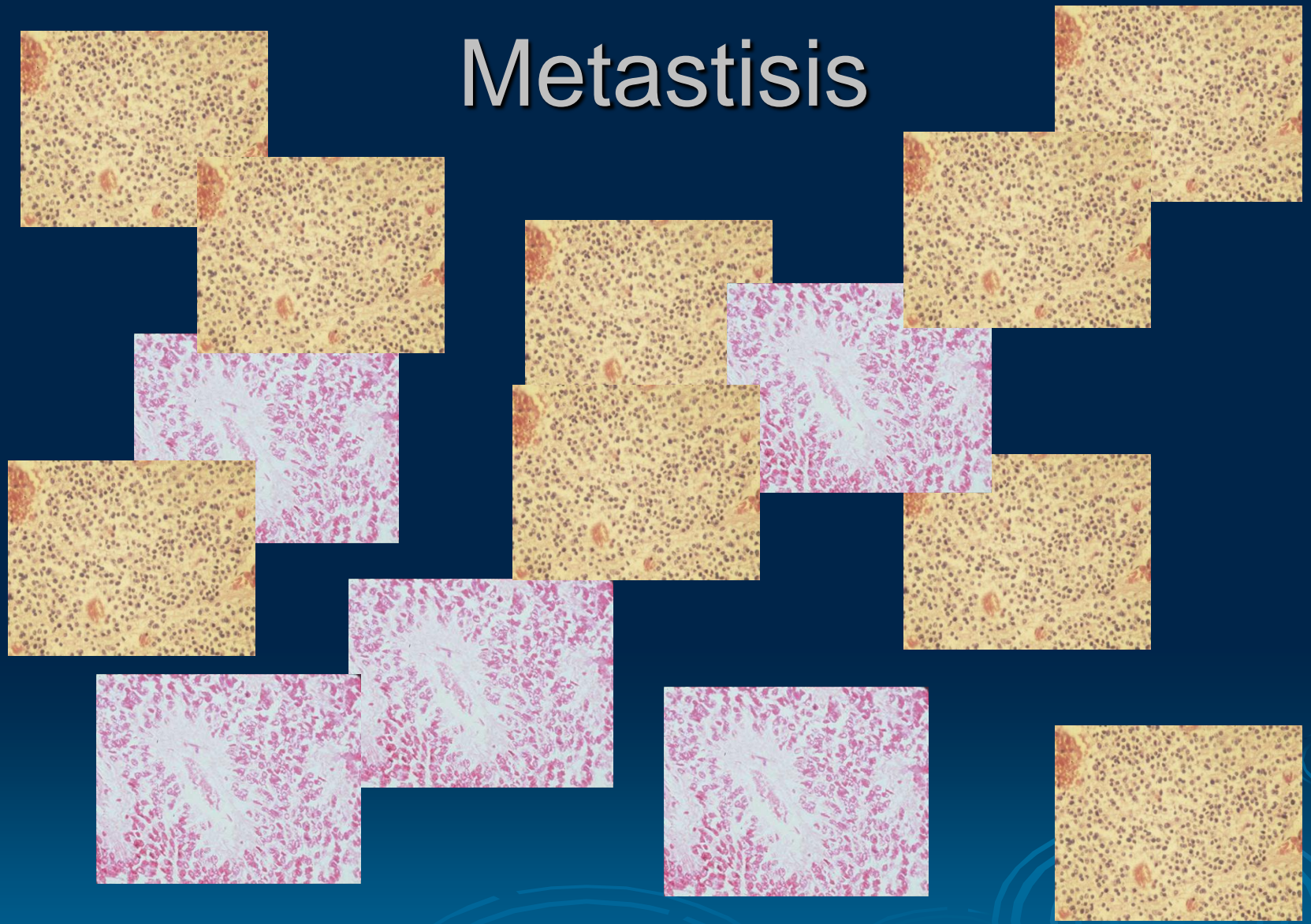
# Big Bucket of Glue



# The Age of Sampling



# Metastasis



# Copy 'n' Paste



# Boilerplate





Big Ball of Mud -- 57

A decorative graphic in the bottom right corner of the slide, consisting of several concentric circles of varying sizes and colors (light blue, medium blue, and dark blue) that resemble ripples in water or a stylized globe.

# How Big is Big?



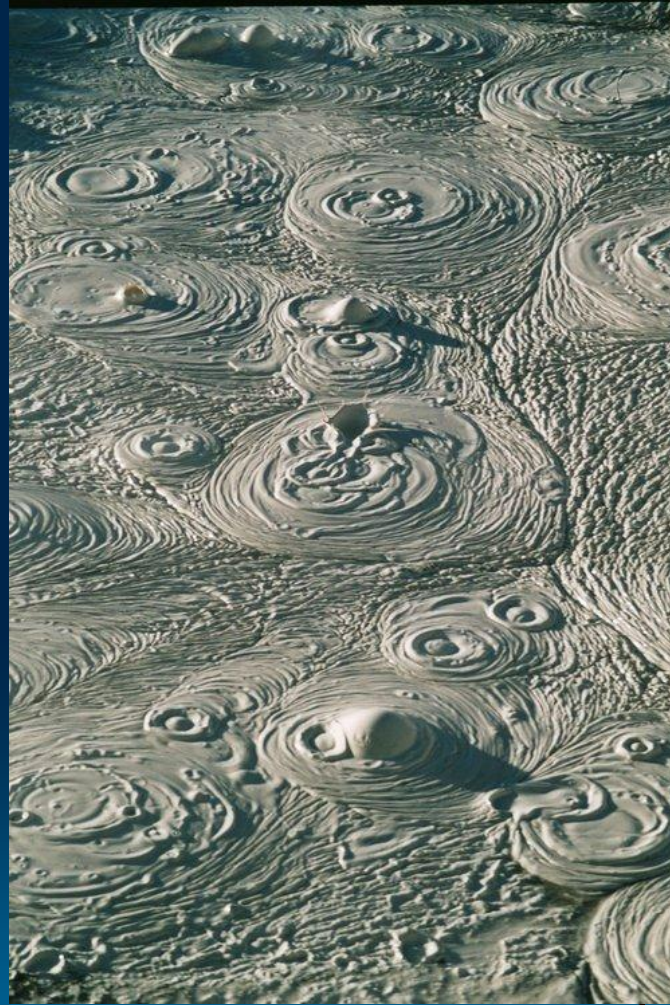
$10^{**1}$ ,  $10^{**2}$ ,  $10^{**3}$



Big Ball of Mud -- 60

The background of the slide is a solid dark blue color. In the lower right quadrant, there are several sets of concentric, light blue circles and ripples, resembling water droplets or sound waves. These circles vary in size and are arranged in a way that suggests movement or a sequence of events. The largest set of circles is centered near the bottom right, with smaller ones to its left and further up and to the right.

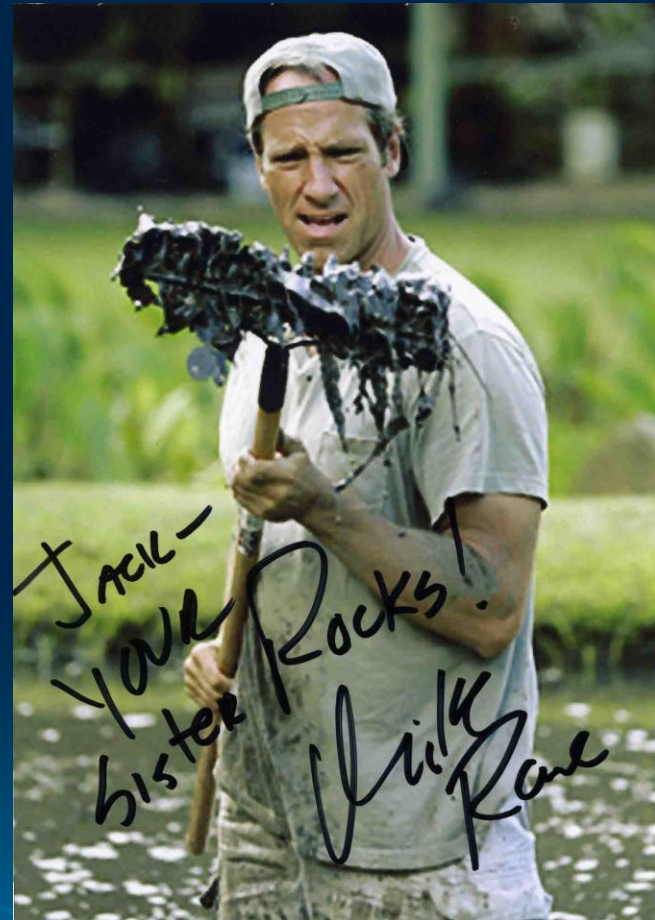
# Why Mud Rules



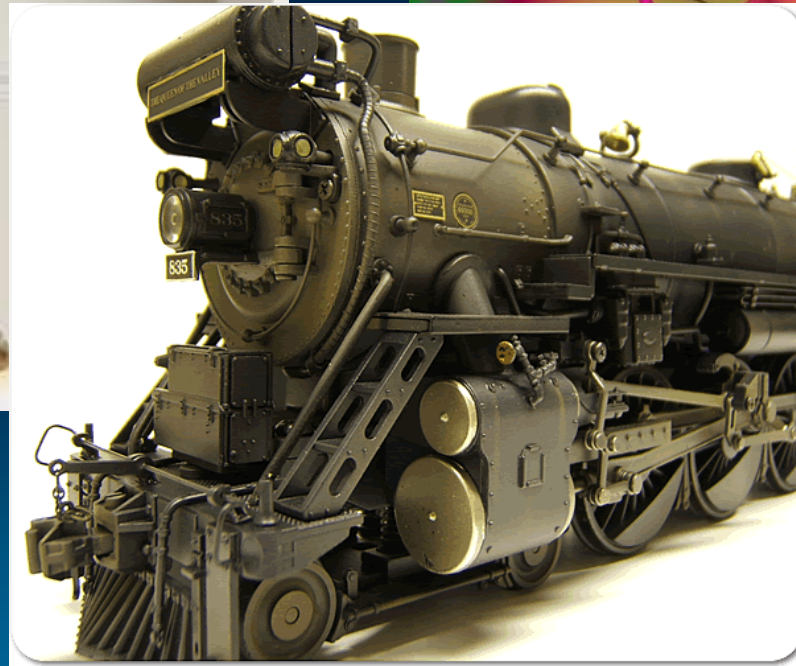
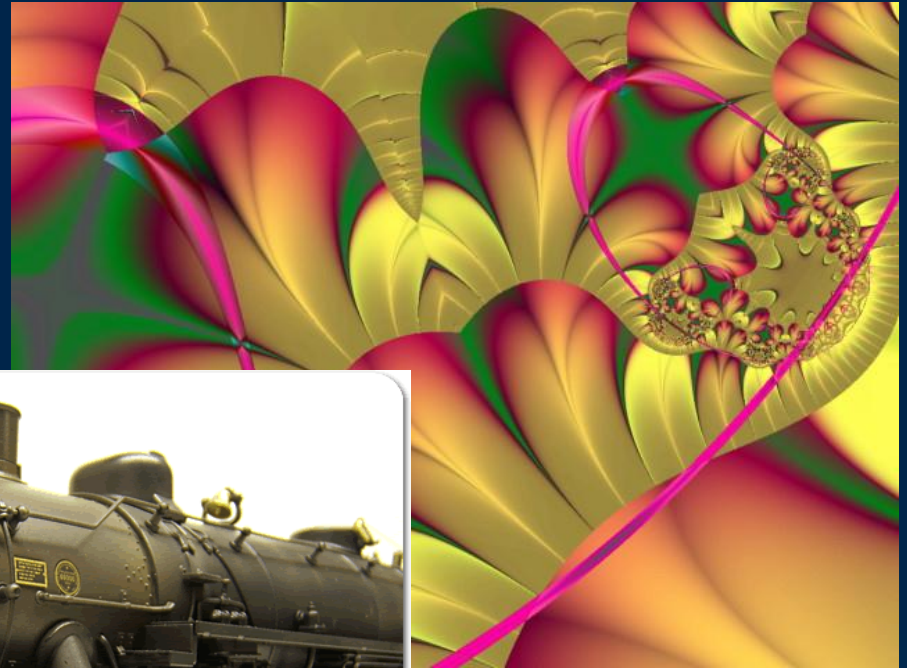
# They Have a Name



# A Dirty Job

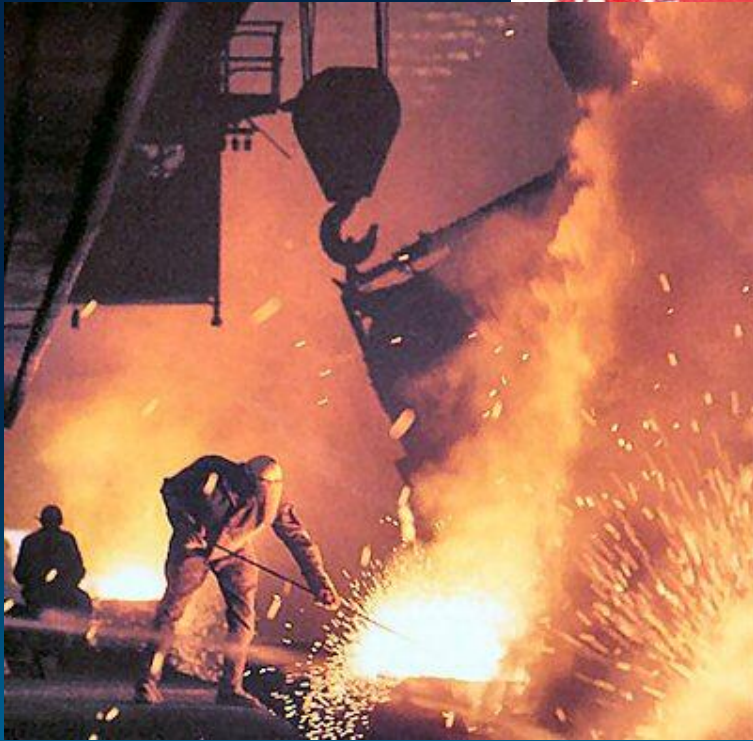


# Gilded Lily

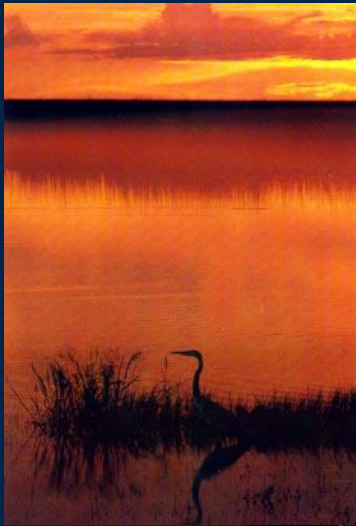




# Aesthetics



# The Everglades



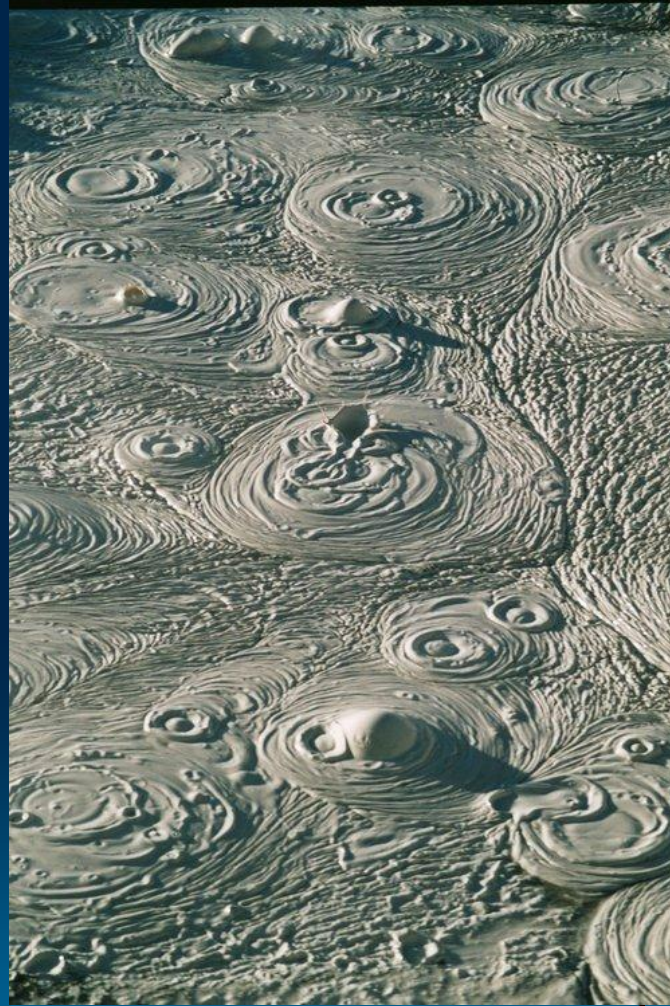
# Swamp Guides



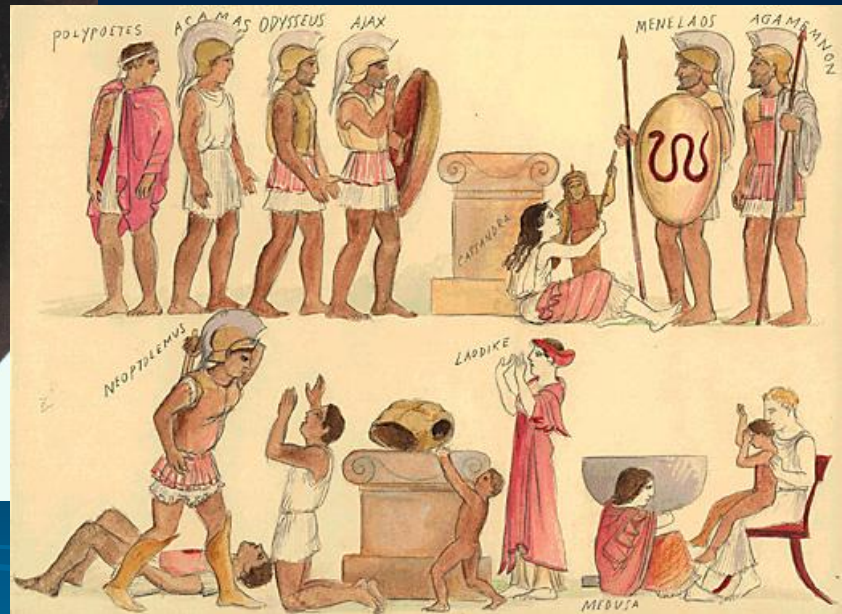
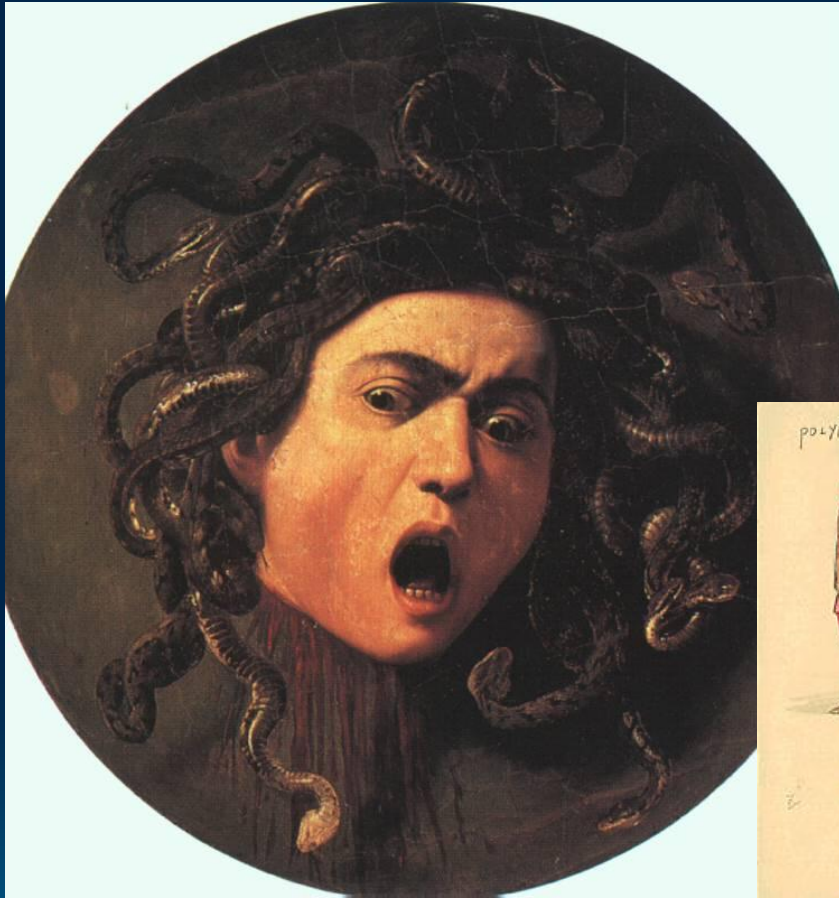
Big Ball of Mud -- 68

A decorative graphic in the bottom right corner of the slide, consisting of several concentric circles of varying sizes and colors (shades of blue and teal) that resemble ripples in water or a stylized globe.

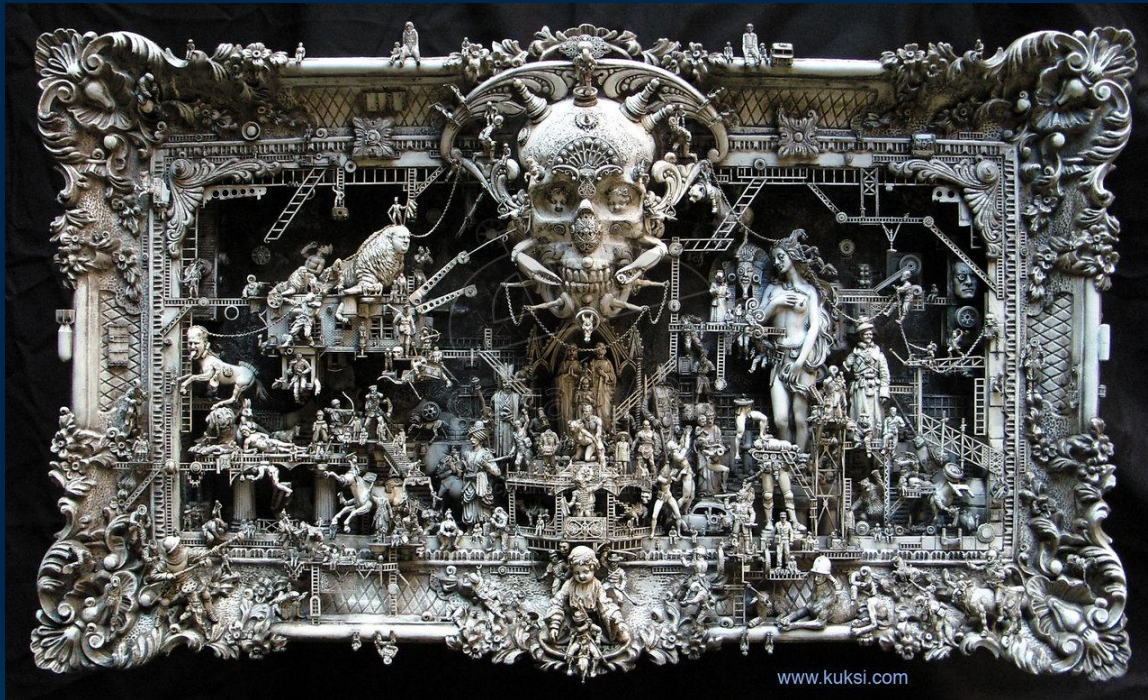
# Essential Complexity



# The Medusa



# Embrace Intricacy



Big Ball of Mud -- 72

The background of the slide is a solid dark blue color. In the lower right quadrant, there are several sets of concentric circles and ripples, rendered in a lighter shade of blue. These circles vary in size and are arranged in a way that suggests a series of ripples on water, with the largest and most prominent set in the bottom right corner and smaller ones scattered around it.



# r/K Selection



# Boomtown to Ghost Town



# Robber Crops



# Labor Costs



# Przewalski's Horses



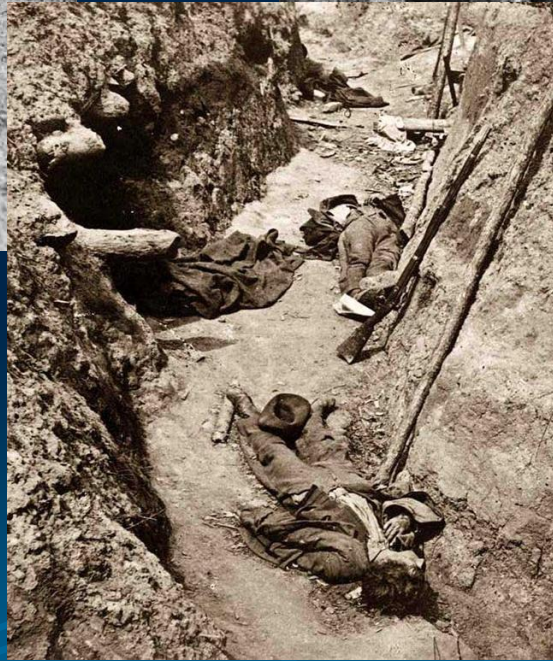
# Commandos and Infantry



# Tools and Tactics

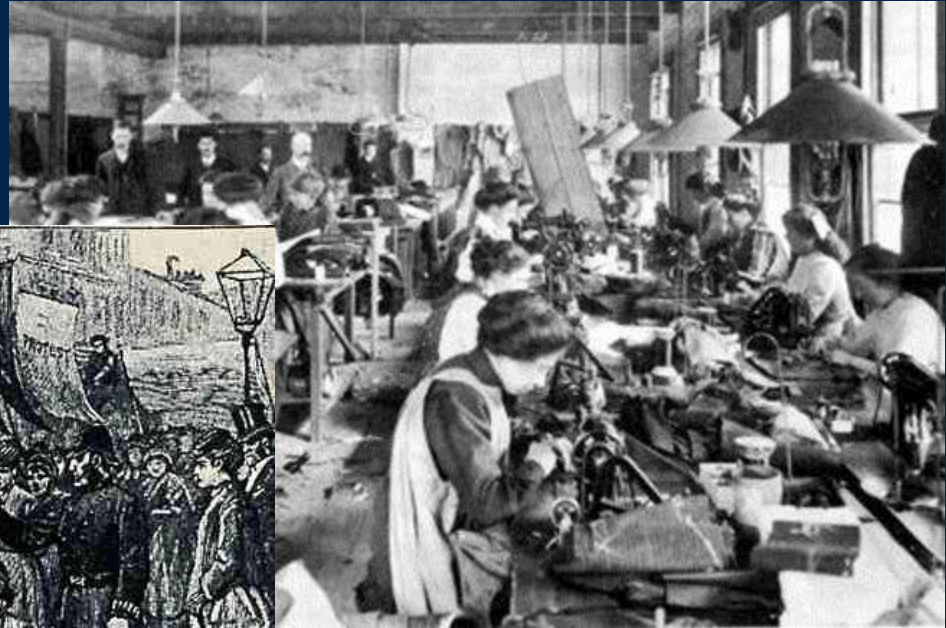


# Trench Warfare





# Sweatshops



# Ranchers vs. Sodbusters



# Sustainability



# Sustainability



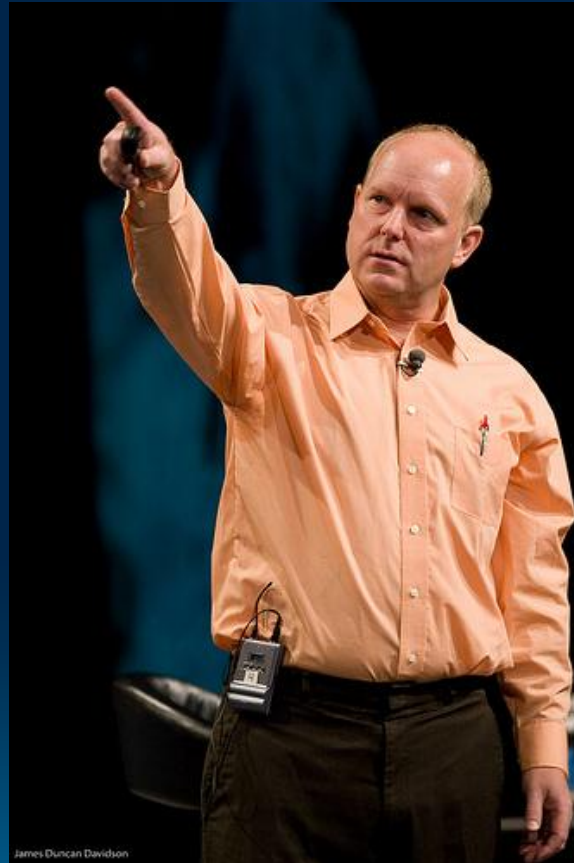
# The Golden Age of Mud



# Mud Reigns



# Beck on Good Code



# The Olfactory Method





# The Mathematics of Addiction

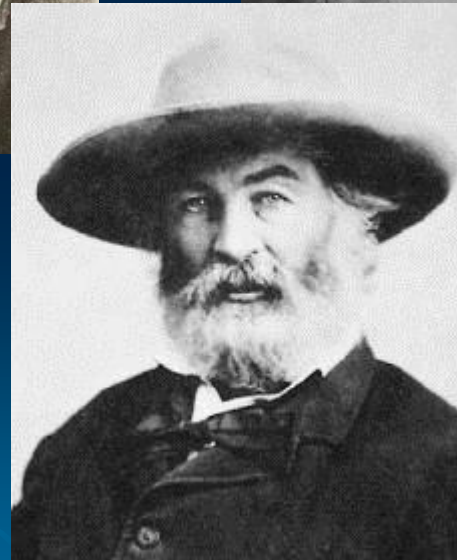
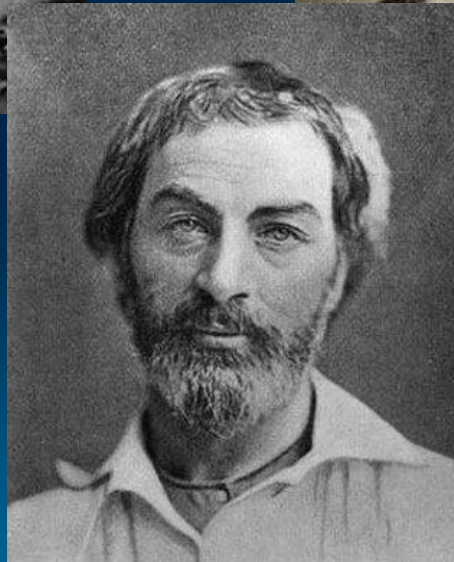
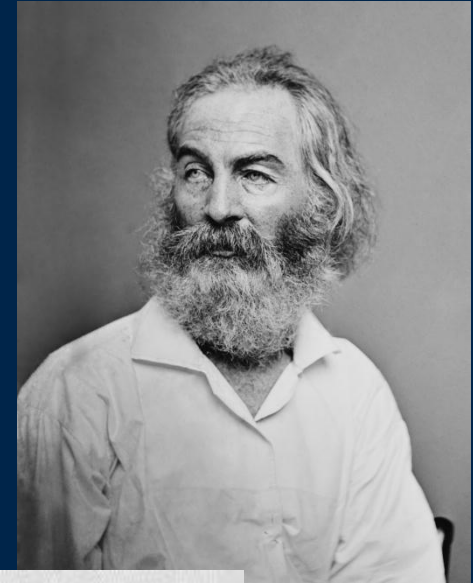
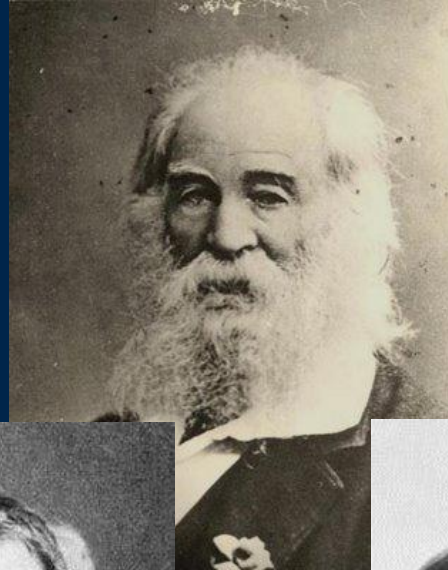
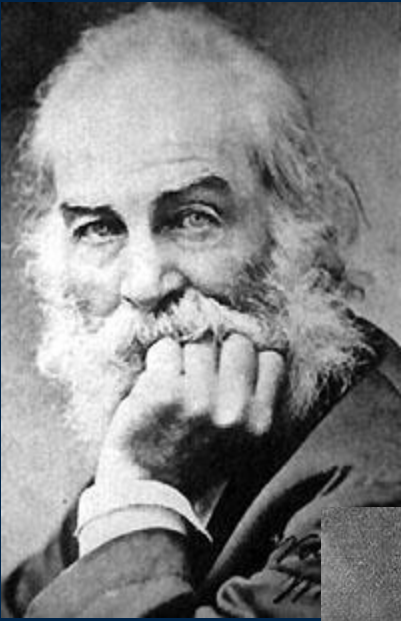


# Better at Doing it Badly

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<xsl:key match="/publisher/books/book" use="author-ref/@ref"
  name="books-by-author"/>
<xsl:template match="/"><bestsellers-list>
  <xsl:apply-templates select="/publisher/authors/author">
    <xsl:sort select="sum(key('books-by-author', @id)/sold)"/>
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  </xsl:apply-templates>
</bestsellers-list></xsl:template>
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    </name>
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    <total_sold>
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    </rank>
  </copy>
</xsl:template>
</xsl:stylesheet>
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# Whitman



# Joseph W. Yoder



Big Ball of Mud -- 92

# Thanks



Big Ball of Mud -- 94

A decorative graphic in the bottom right corner of the slide, consisting of several concentric circles of varying sizes and colors (shades of blue and teal) that resemble ripples in water or a stylized globe.



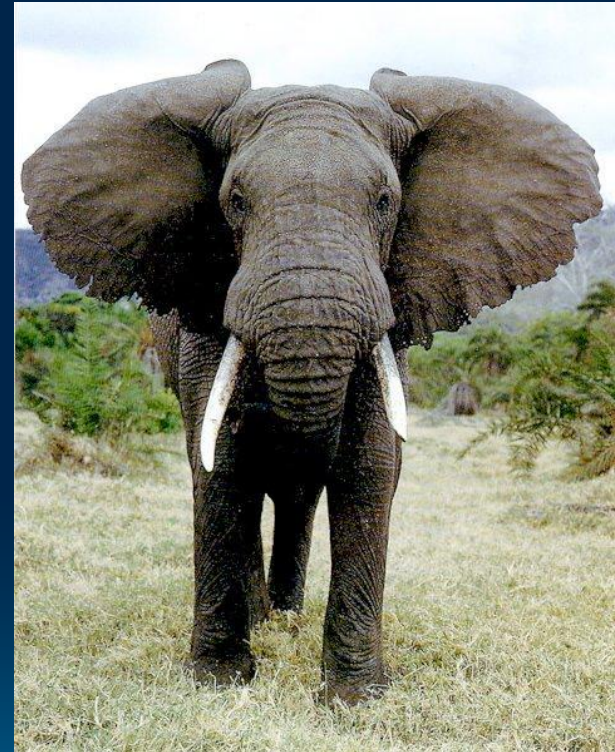
Big Ball of Mud -- 95

# Storytellers





# Frequent Delivery



# Joshua Kerievsky



Big Ball of Mud -- 98

# User Serviceable Parts



# Amish Furniture



# Amish Furniture



# Agile Ike



# Levittown



# Does Structure Get in the Way?

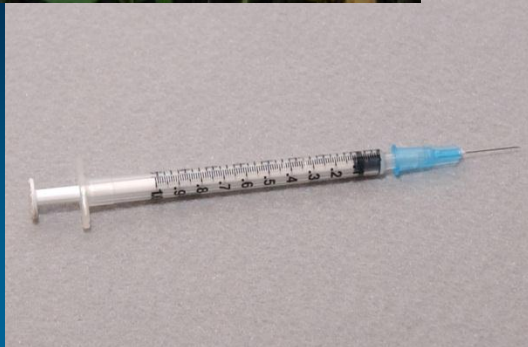




# The Swamp



# The War on Bugs



# Maintenance



The background is a solid blue gradient. In the lower right quadrant, there are several sets of concentric circles, resembling ripples in water, rendered in a lighter shade of blue. The text "Big Ball of Mud -- 108" is centered at the bottom of the page.

Big Ball of Mud -- 108

# A Scene from a Nightmare



# Ravioli Code



# Cannoli Code



# Lasagna Code

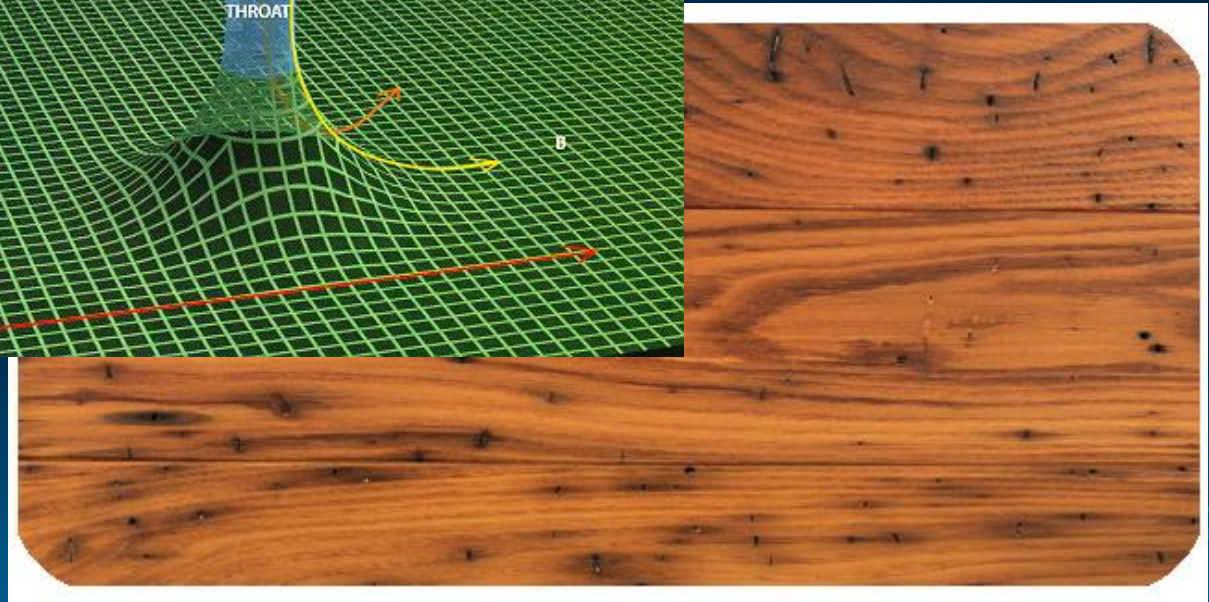
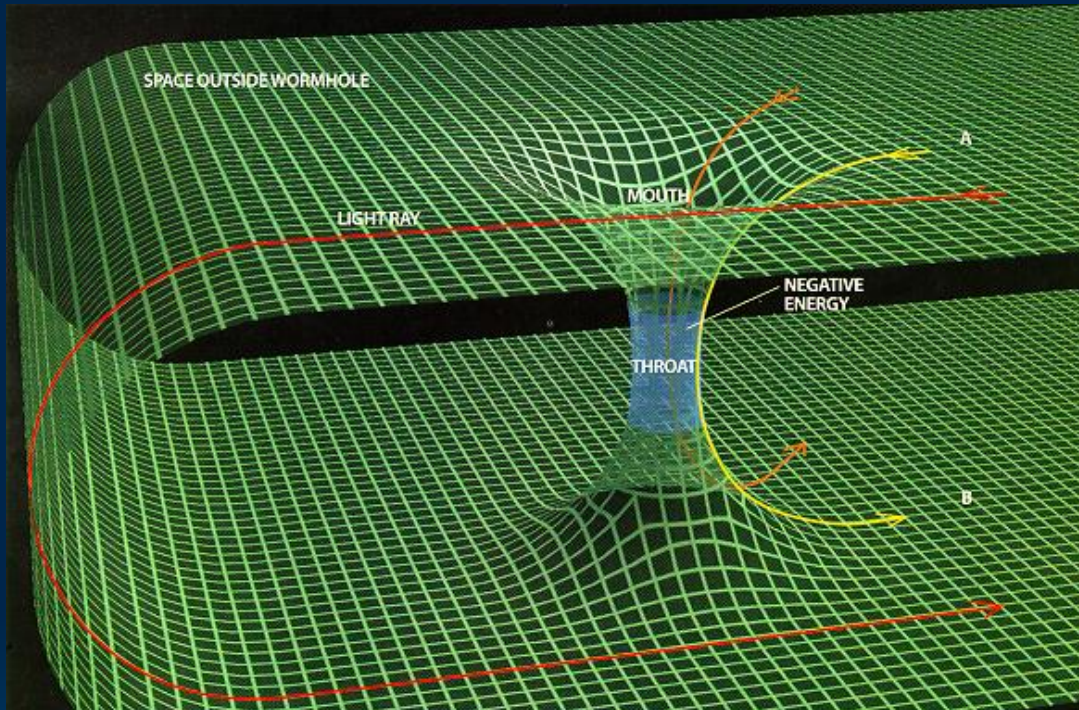




# Manicotti Code



# Wormholes



# Calamari Code



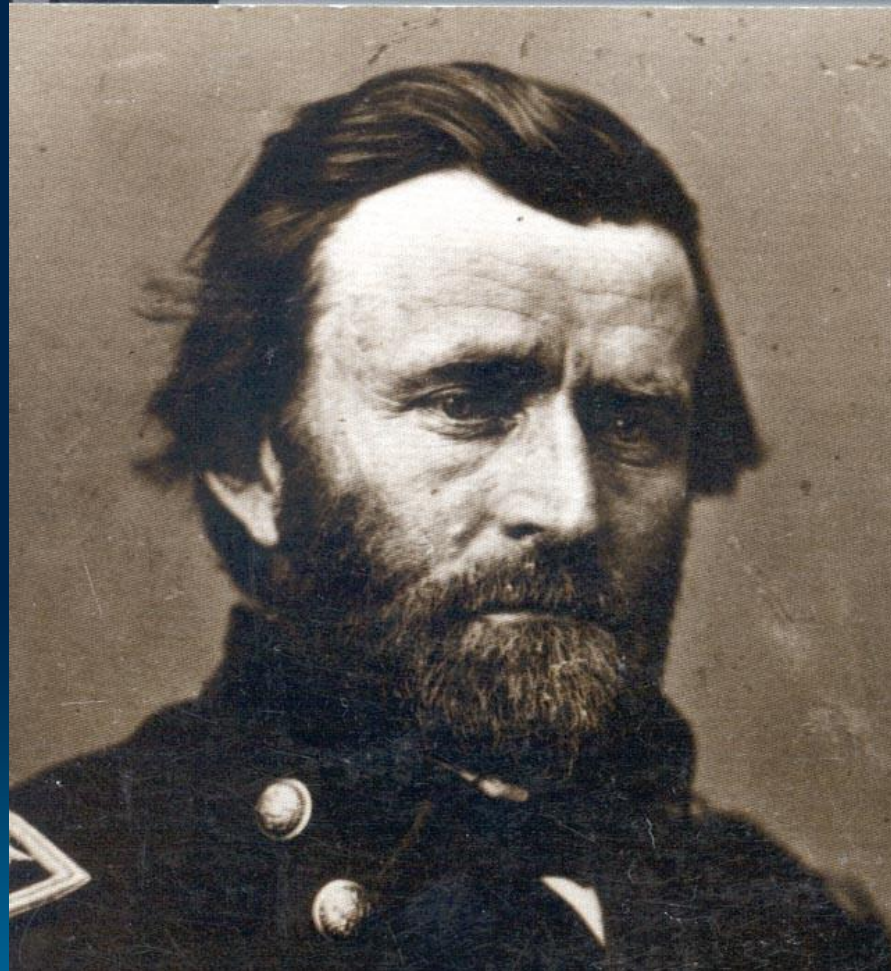
# Shoddy Workmanship



# Sprawl



# The Butchers



Big Ball of Mud -- 118