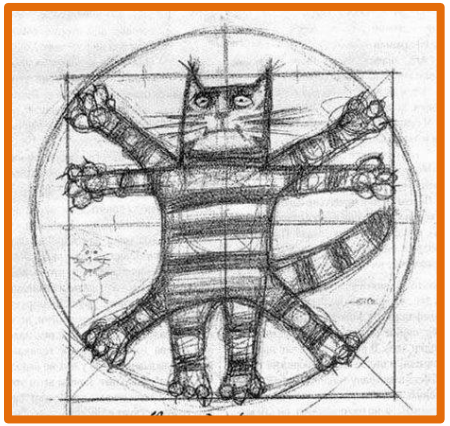
Cheryl Campbell "Proportions"

Ridgway Chainsaw Carver's Rendezvous 2014

Cheryl will be speaking on Proportions, the recognition of simple forms and lines which help to achieve realism in your final animal form. Although focusing on bears and dogs, she will be able to present helpful commonalities to other mammals that may help you visualize and improve your own design approach.

A native Nebraskan, Cheryl has lived and worked in Rhinelander, WI for the last 20 years. Carving with a chainsaw since 2003, she likes the creative and physical challenges inherent in this craft form. Working to establish her own style, she seldom repeats a carving design, unless striving to improve on a previous attempt or unless a subject is especially enjoyable. http://www.theheartofthewoods.com

Proportions



- The value of using accurate proportions

  Does practice make perfect?

- Resources for study: referencing realism
- Tweaking proportions to achieve specific effects
- Goal: provide guides that will allow you to improve, yet maintain or expand on your own style

What tools or rules you use may be determined by…

- Level of realism you want to achieve
  - Accuracy of representation
  - Tune up your vision while maintaining your own style
  - Caricature
  - Fantasy
- Time you want to spend
- Your ability to recognize anatomical relationships and employ visual benchmarks
- Preference for using measurements vs using guides
- Access to reference images

Go from more complex methods to simpler rules of thumb

- ✓ Mathematics of proportion (a lesson in accuracy)
- ✓ Using Grids/patterns
- ✓ Using Visual clues
  - Recognizing anatomical relationships
  - ‘Caliper vision’
  - ‘Proportional dividing’

Transferring measurements from an image or model to the log

You will need:

A 3-dimensional model or 2-dimensional image

- ✓ images can be any convenient size
- ✓ Acquire a clear frontal image and, if possible, a matching side view

Measuring device

Simple ruler, calipers, compass

For computer screen images…

On screen calipers

Iconico calipers

Comes in various forms (ruler, technical, ‘tall’ long

- can be set to various units (inches, pixels, metric, etc.)
- can be rotated

Transferring measurements from an image to a log

Measure the **widest** part of your image

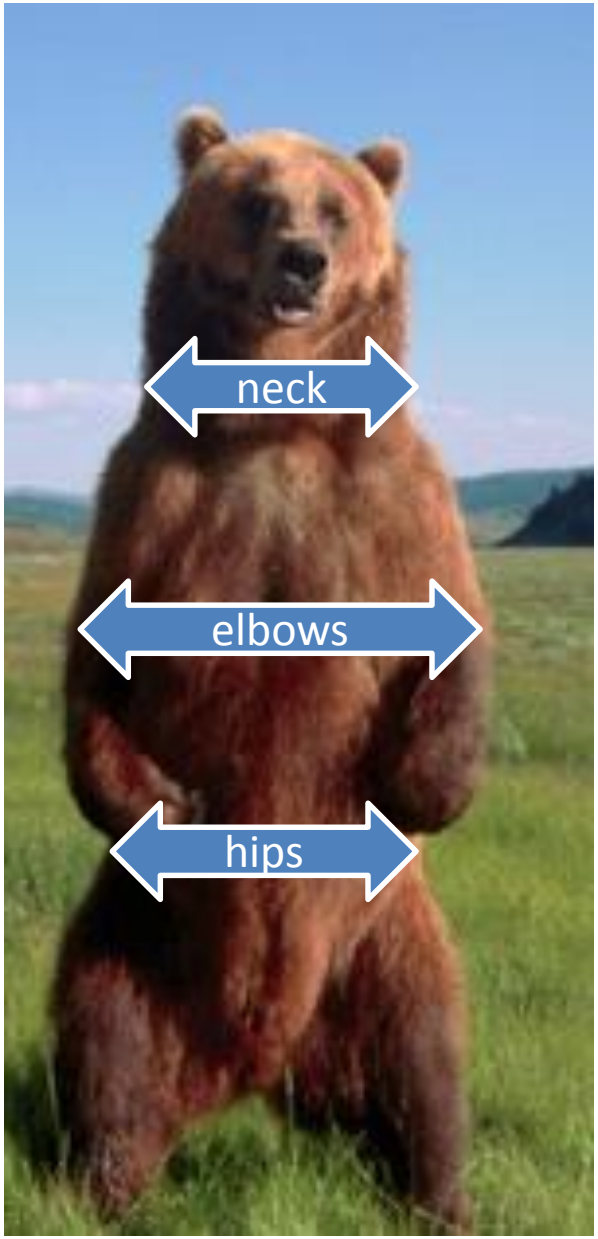
- This widest area should fit edge to edge in your log

Our bear's widest measurement = 1.84"

Continuing with widths…take other measurements that interest you

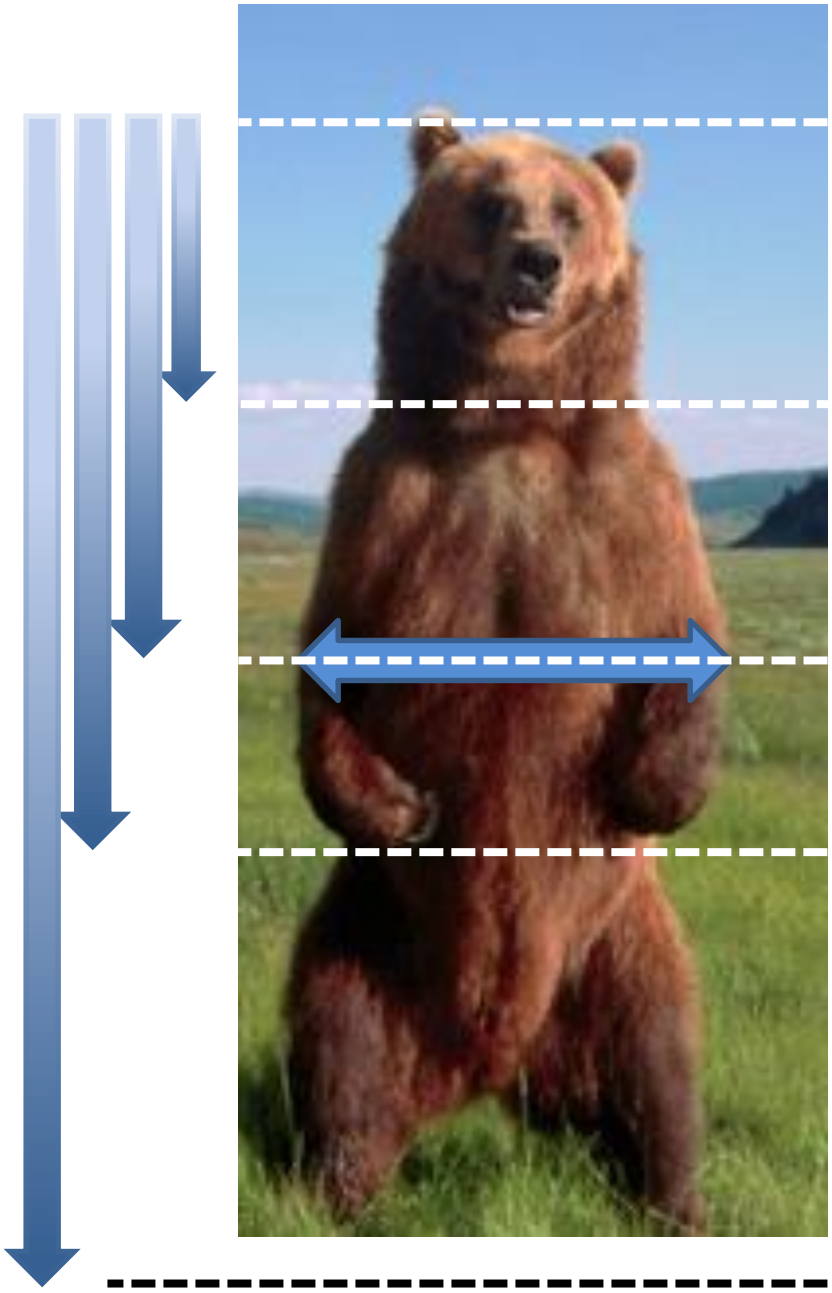
- ★ *Keep your view static, don't zoom in and out*

	Image measurement	
Widths		
Width at neck	1.13”	
… at elbows	**1.84”**	
… at hips	1.35”	



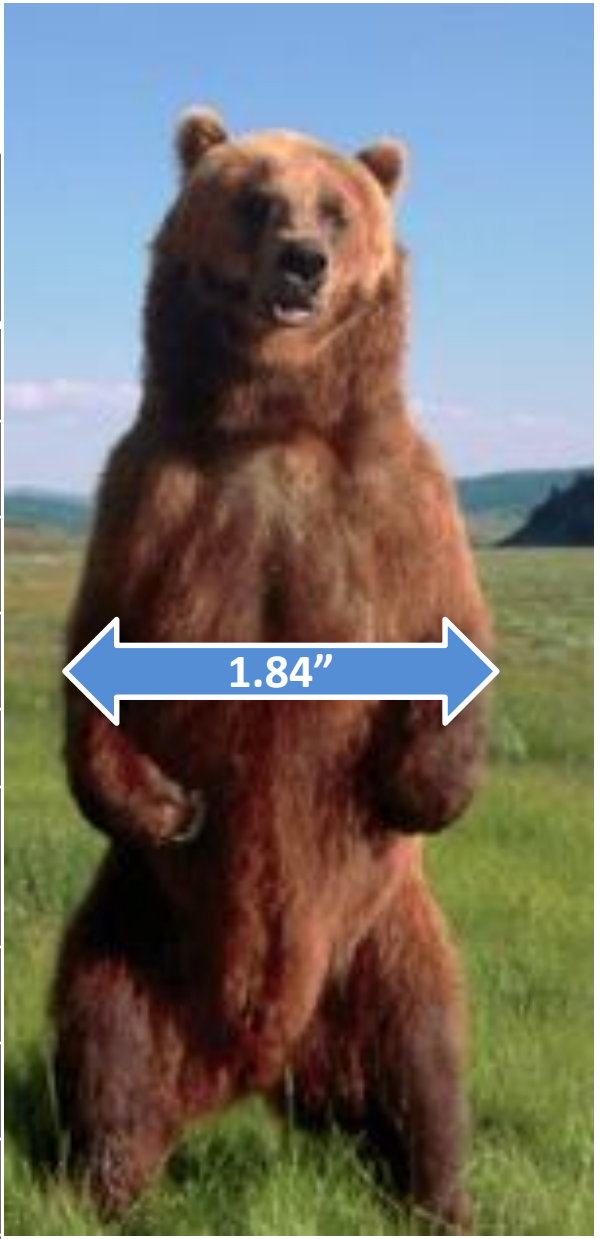
In this example, we'll measure *downward* from the top of the head

	Image measurement
Widths	
Width at neck	1.13"
… at elbows	**1.84"**
… at hips	1.35"
Heights *(from top down)*	
…to shoulder	0.78"
…to elbows	2.29"
… to hips	3.10"
… to bottom	5.06"



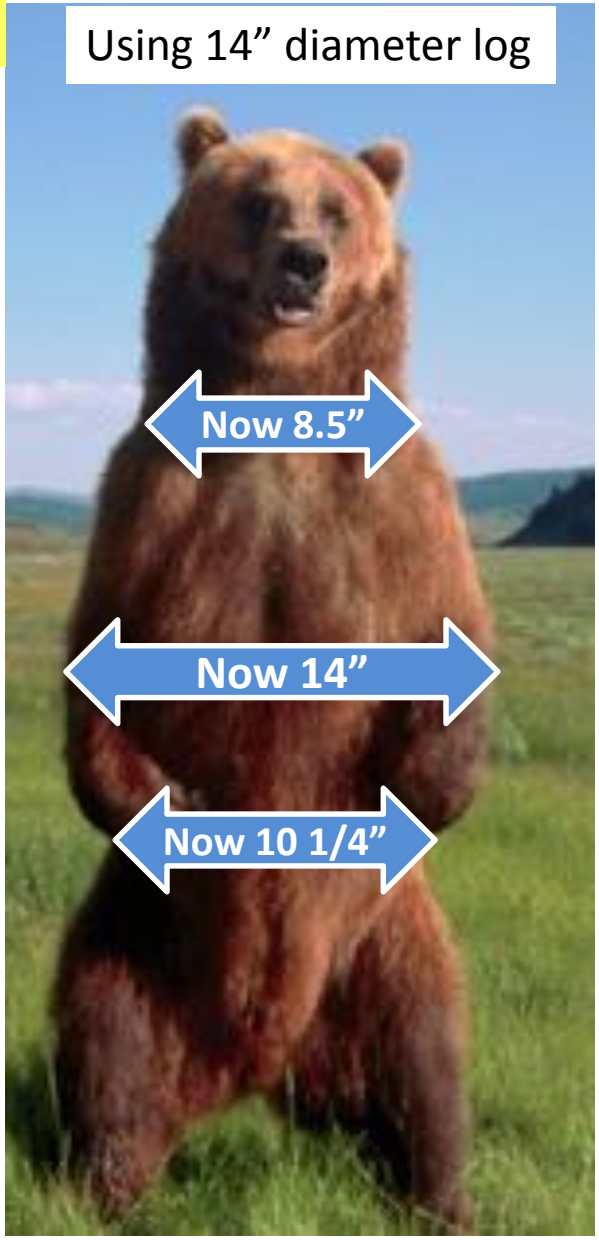
Now! *Divide all your measurements* by the greatest width (**1.84”**)

	Image measure-ment	Widest measure-ment	Conversion factor
Widths		Divide by:	=
Width at neck	1.13”	1.84”	0.61
… at elbows	**1.84”**	1.84”	**1.00**
… at hips	1.35”	1.84”	0.73
Heights *(from top down)*			
…to shoulder	0.78”	1.84”	0.43
…to elbows	2.29”	1.84”	1.24
… to hips	3.10”	1.84”	1.68
… to bottom	5.06”	1.84”	2.75



Multiplying that conversion factor by any log diameter will give you your log measurements

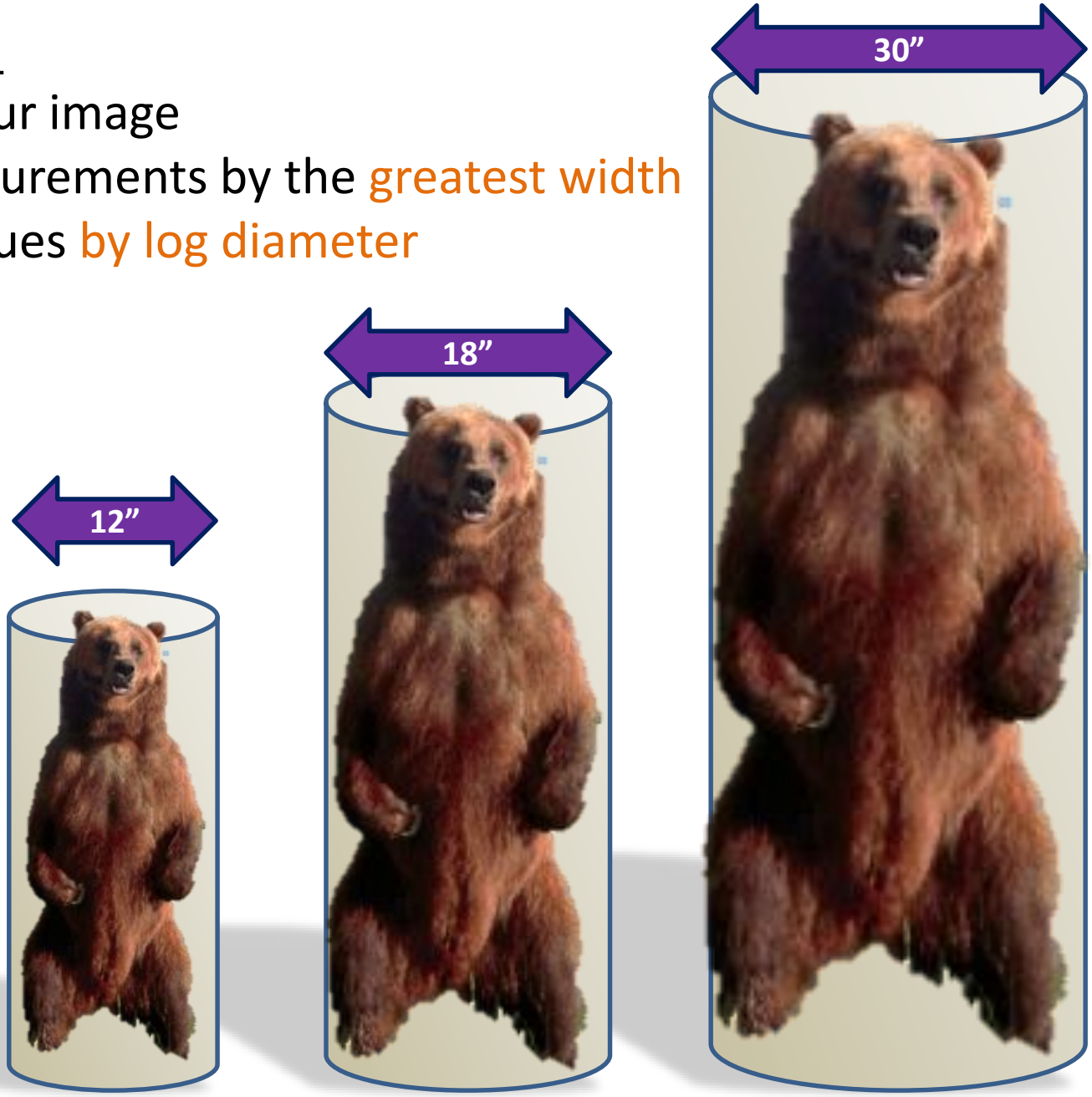
	Conversion factor	14” log
Widths		x 14 =
Width at neck	0.61	8.5”
… at elbows	1.00	14”
… at hips	0.73	10”
Heights *(from top down)*		
…to shoulder	0.43	6”
…to elbows	1.24	17.5”
… to hips	1.68	23.5”
… to bottom	2.75	38.5”



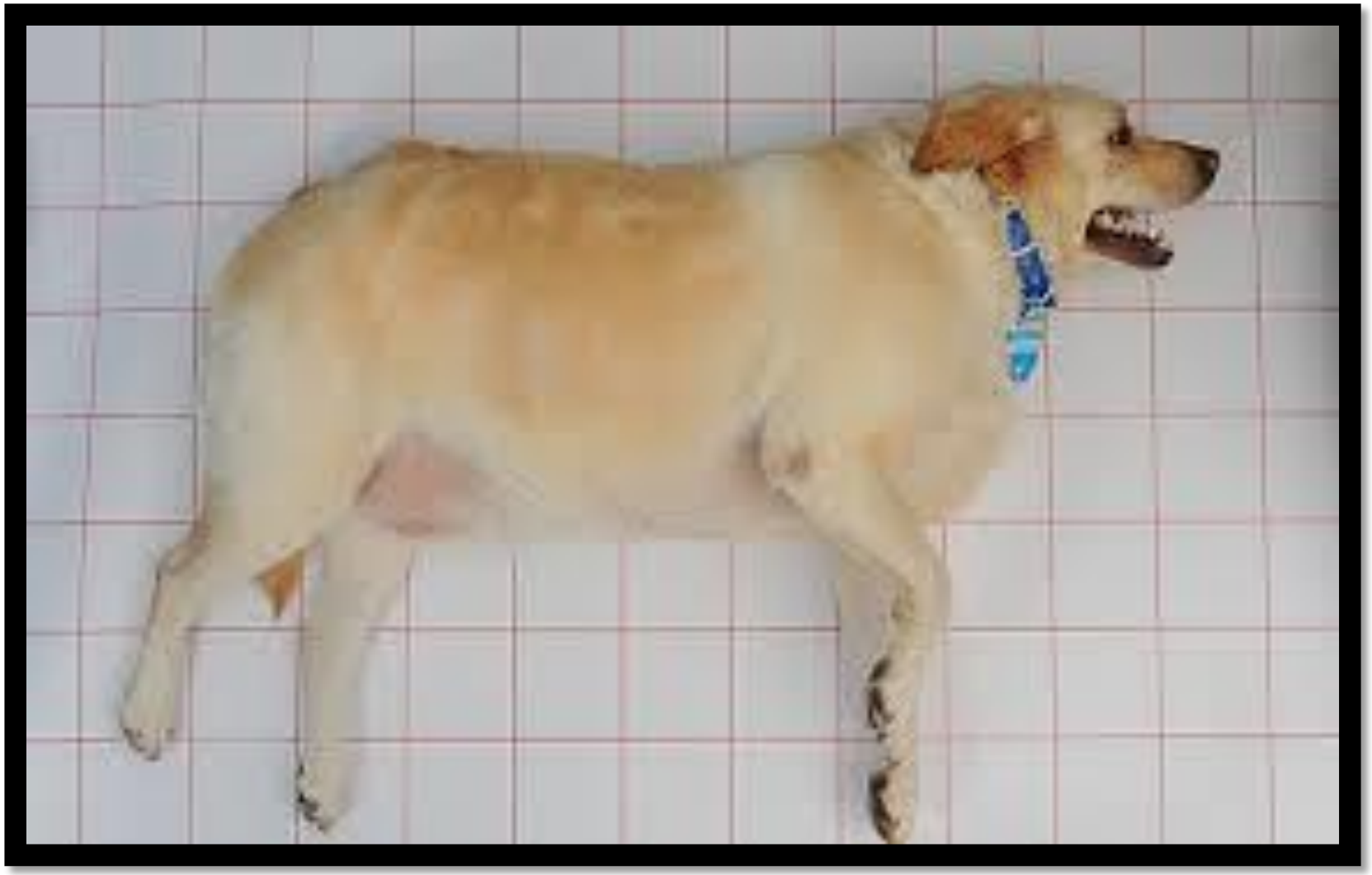
To summarize..

1. **Measure** your image
2. **Divide** measurements by the greatest width
3. **Multiply** values by log diameter

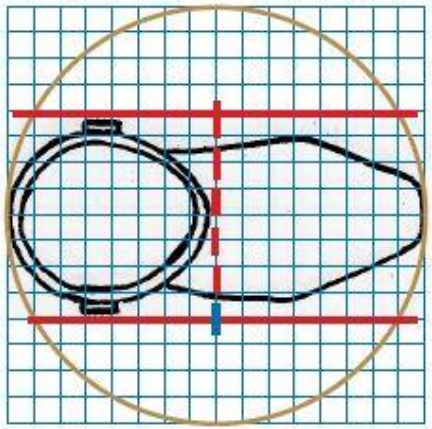
The same conversion factors can now be used for ANY LOG SIZE!



Using Grids and Patterns



Free patterns

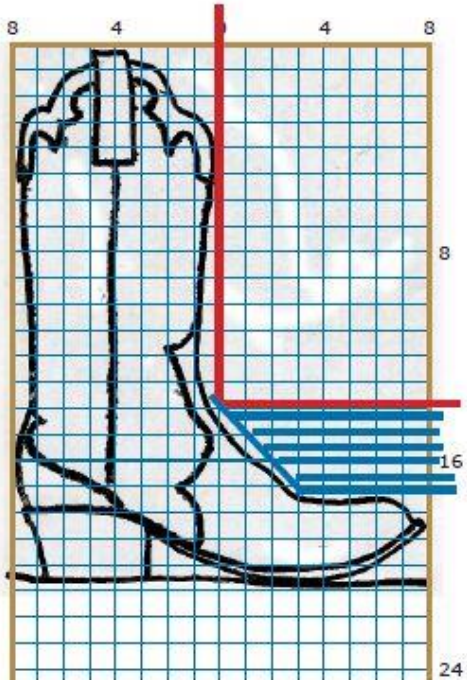


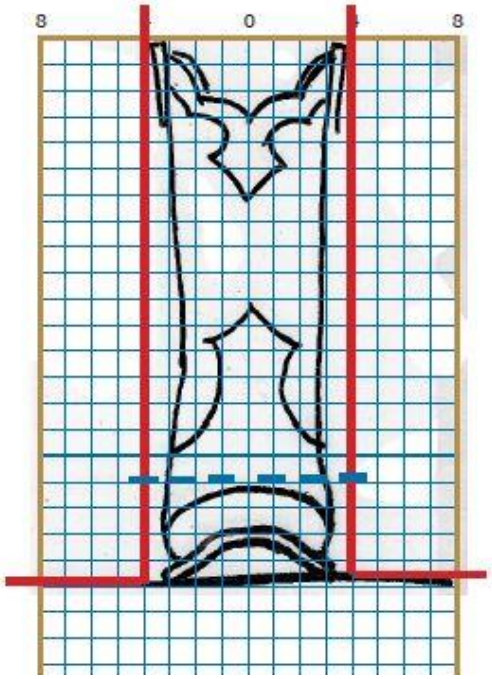
TOP VIEW

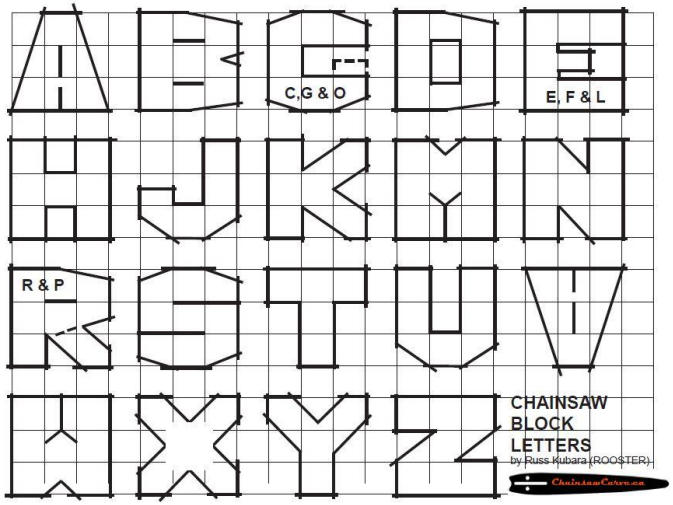
Photo (C) Michael Kelly / michaelkelly@inbox.com
taken at Cave Creek, Arizona

ChainsawCarve.ca

Russ Kubara's
Chainsawcarve.ca





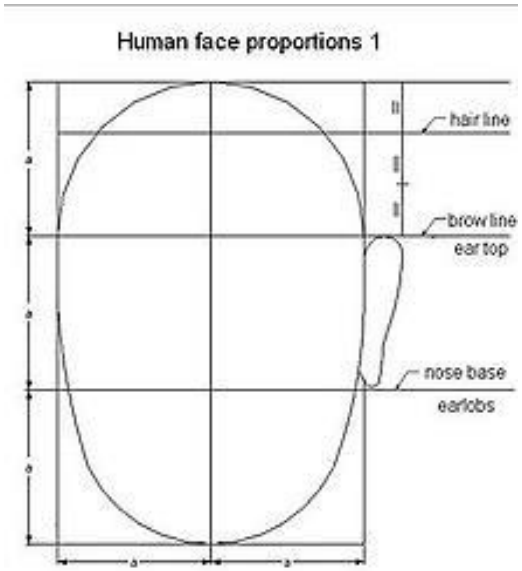


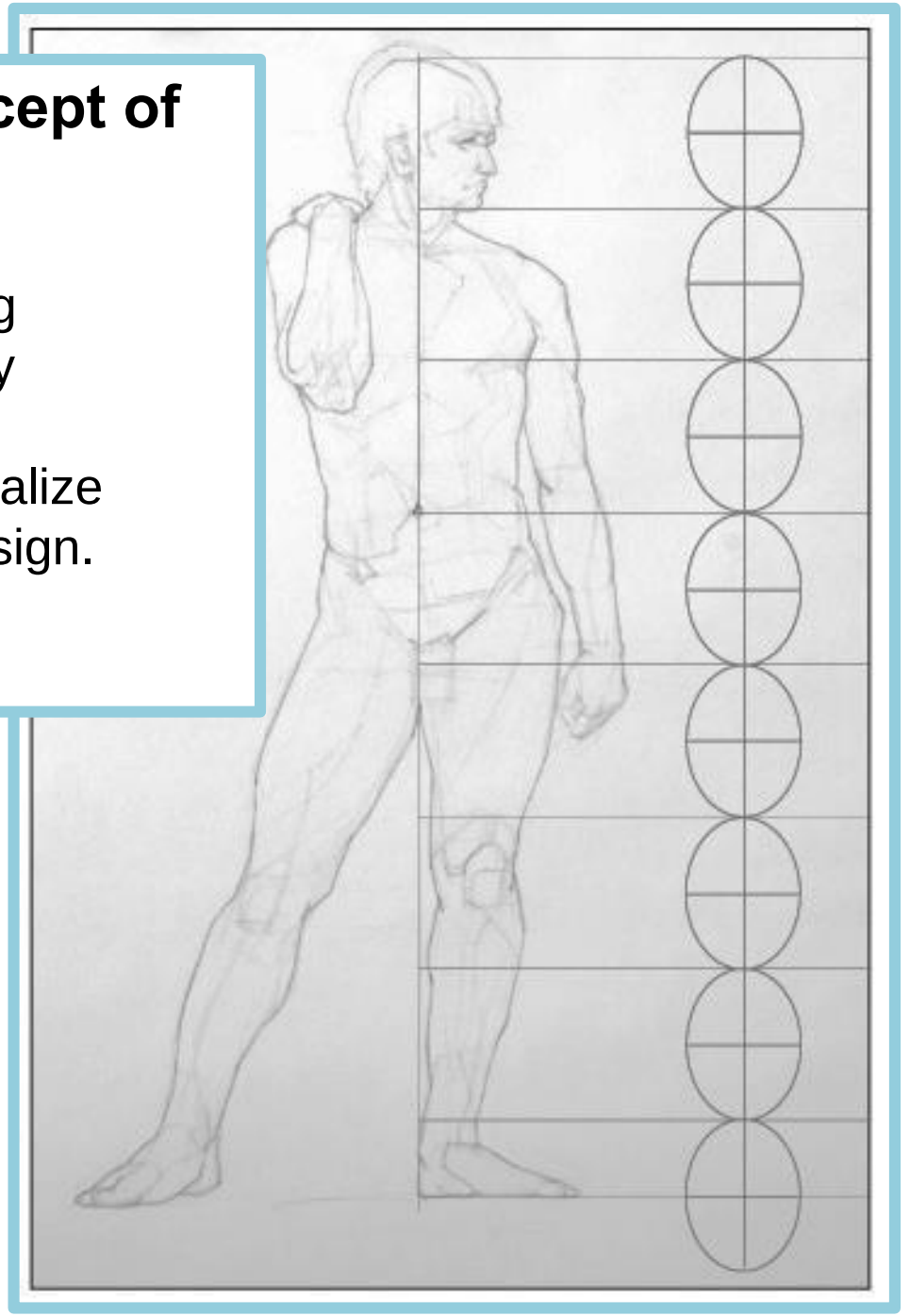
Visual references… the concept of ‘proportional dividing’

“Head units”: Useful in determining proportions of other parts of the body

Head unit concept can help you visualize proper proportion in your carving design.

Most adults are ~ 7 ½ heads tall

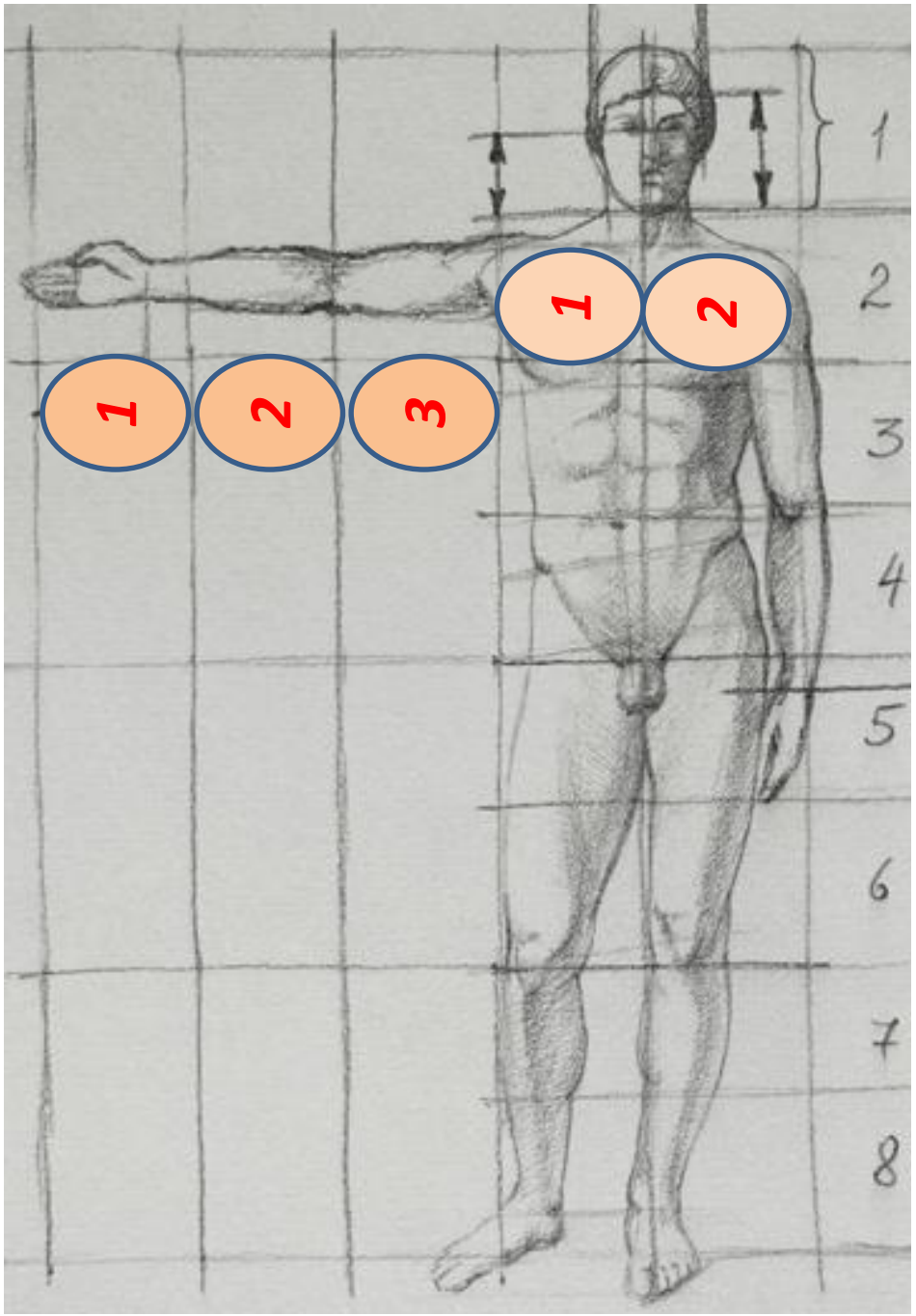




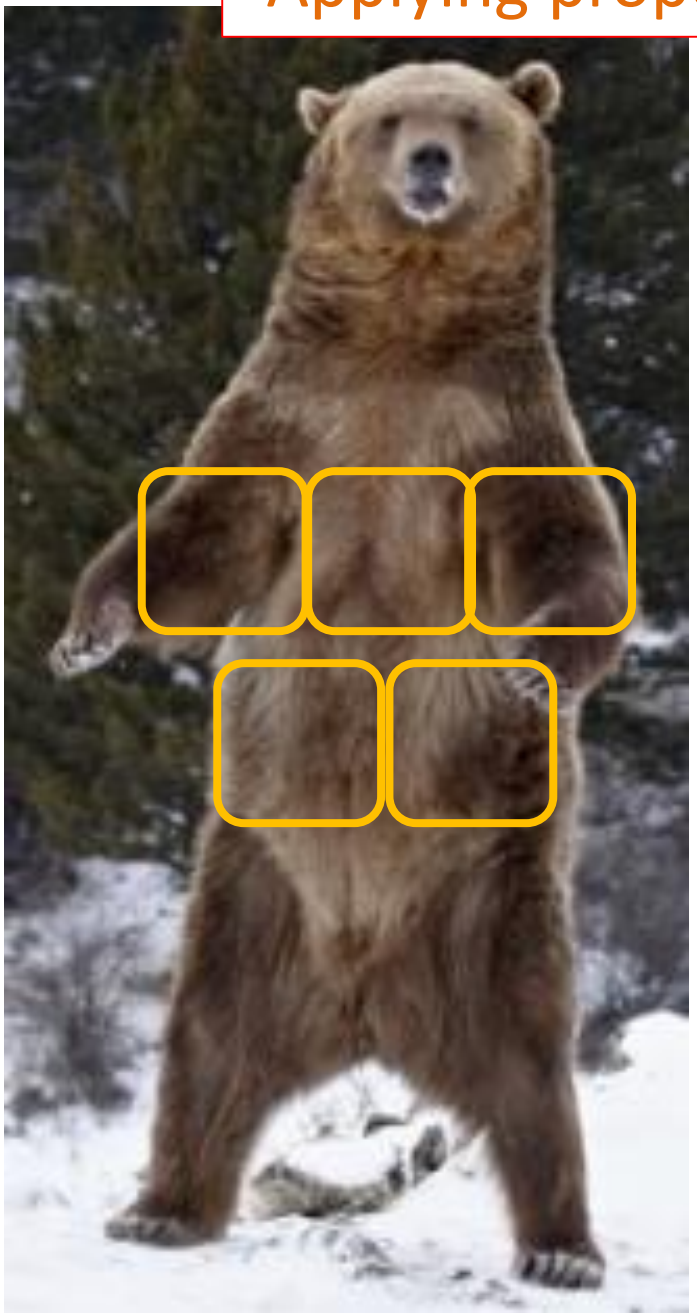
Changing these standard proportions alters the visual impact and our feelings about the image

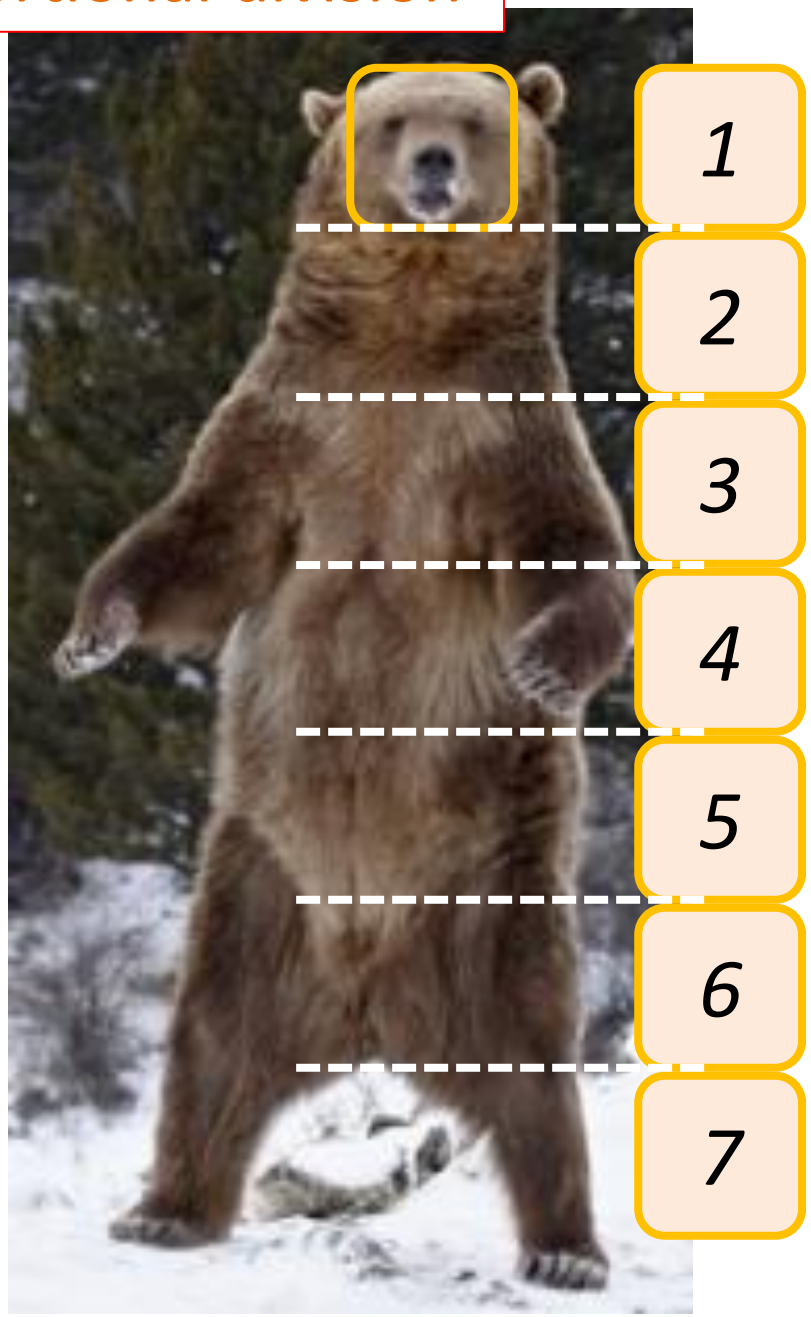
Slight changes alter masculinity/femininity

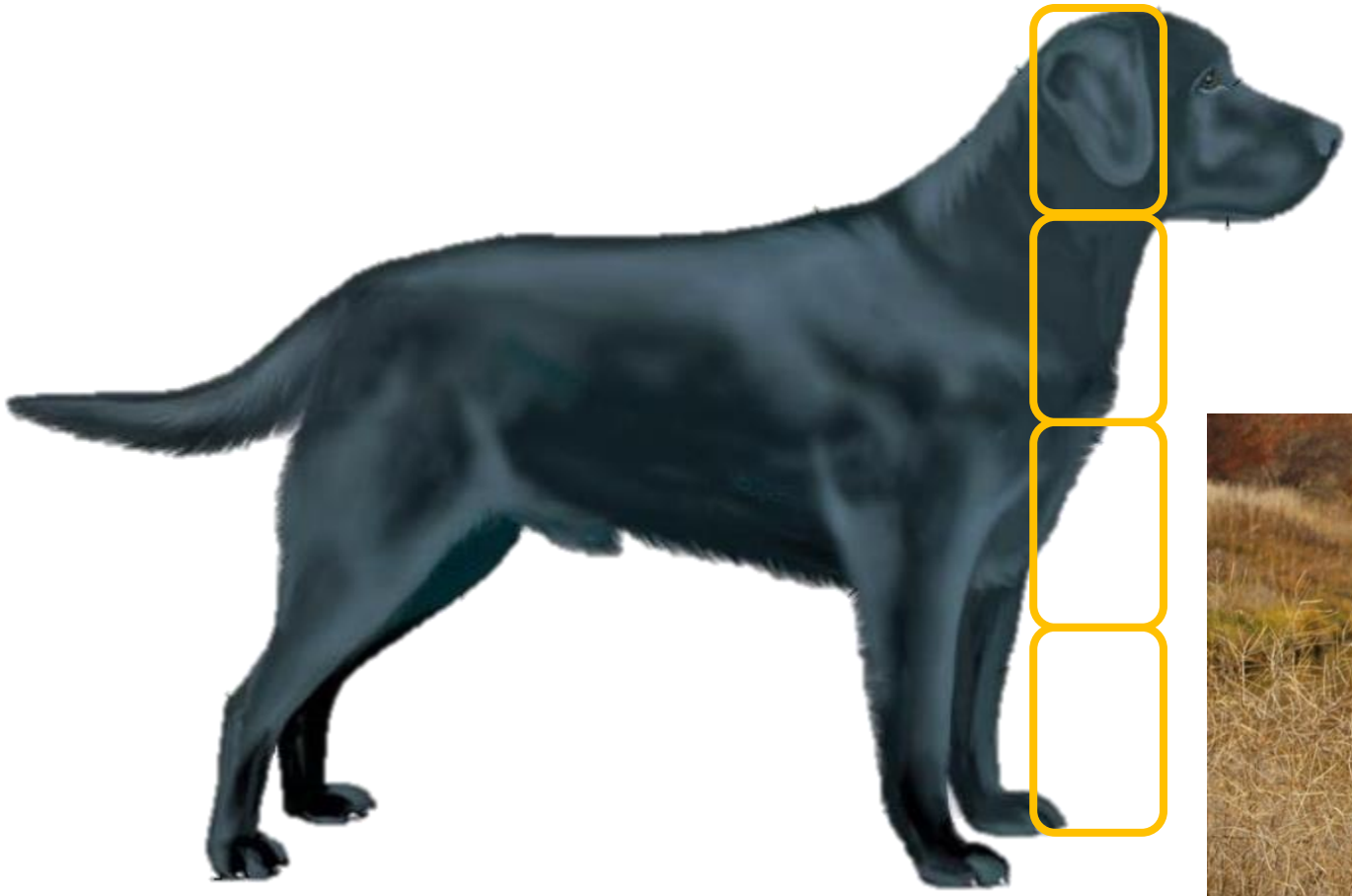
Longer legs
Wider shoulders
Heroes are 8 ½ heads tall



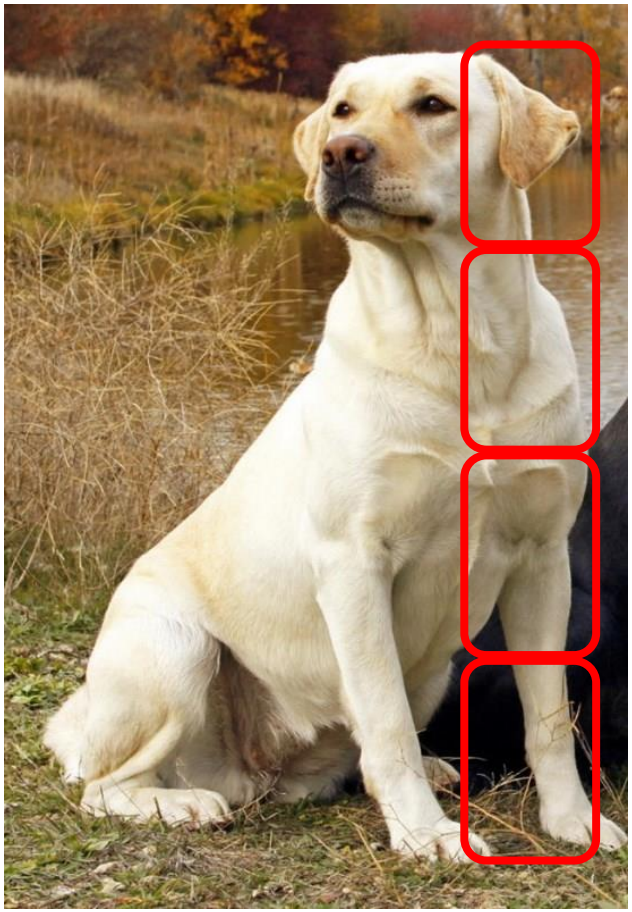
Applying proportional division





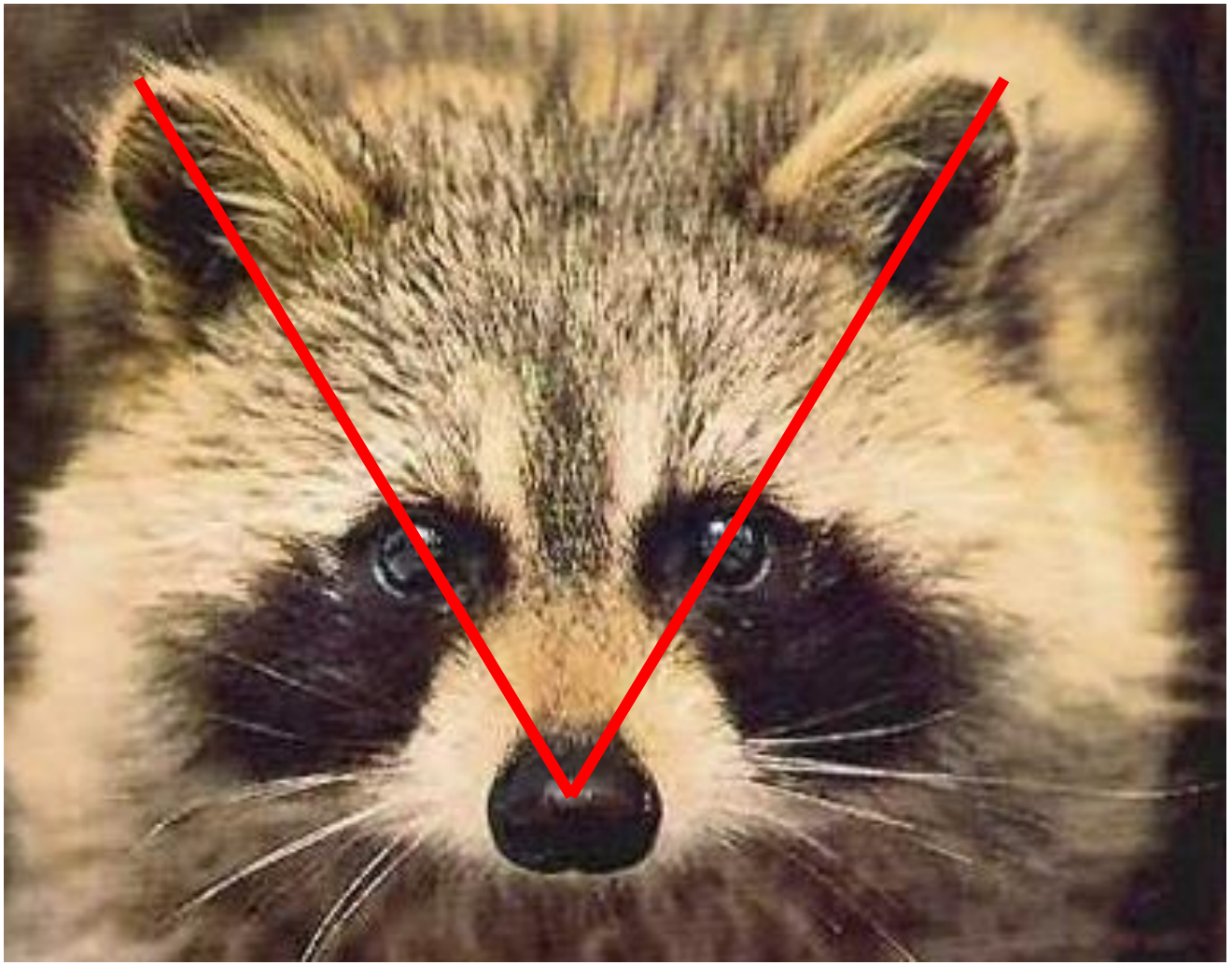


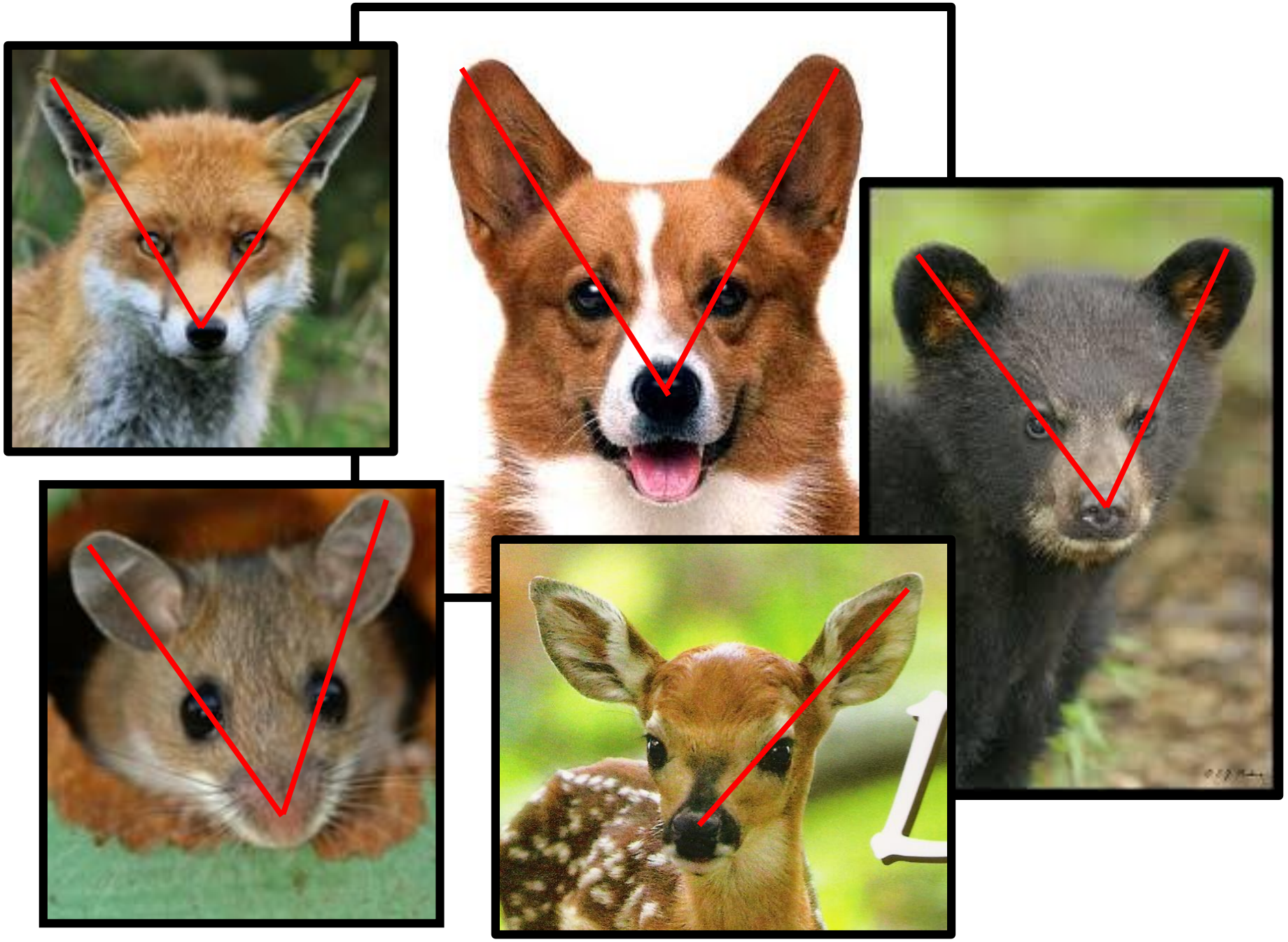
Look for simple relationships

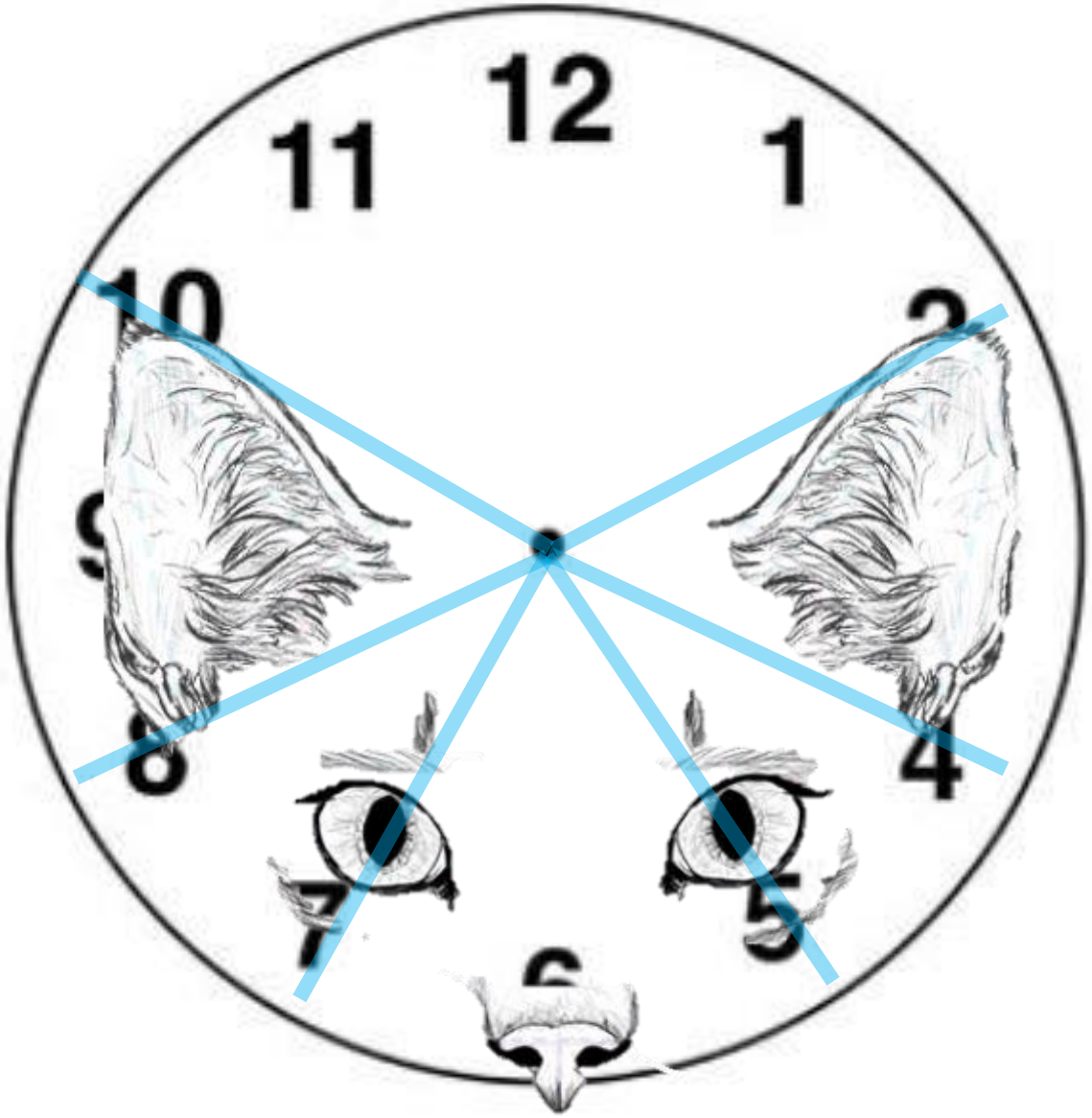


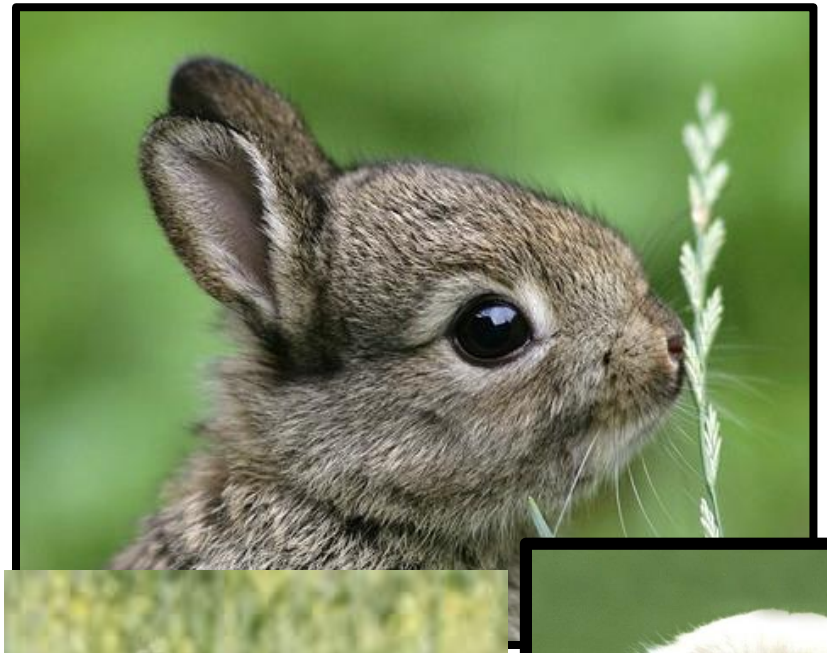
Caliper vision

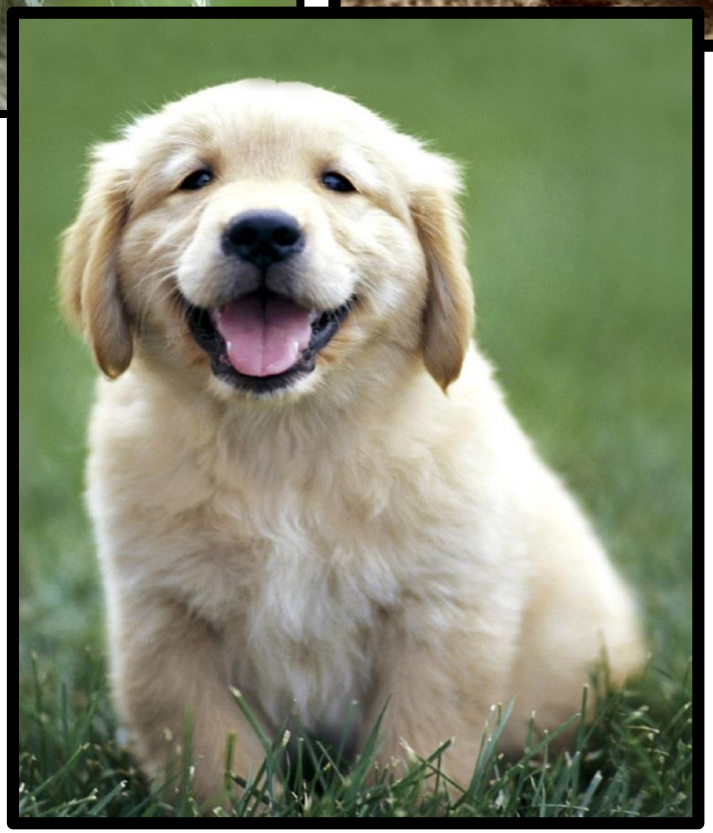
Aligning image elements using angles and lines






12
11
1
10
2
9
8
4
7
5
6





Changing proportions

What makes things “cute”?

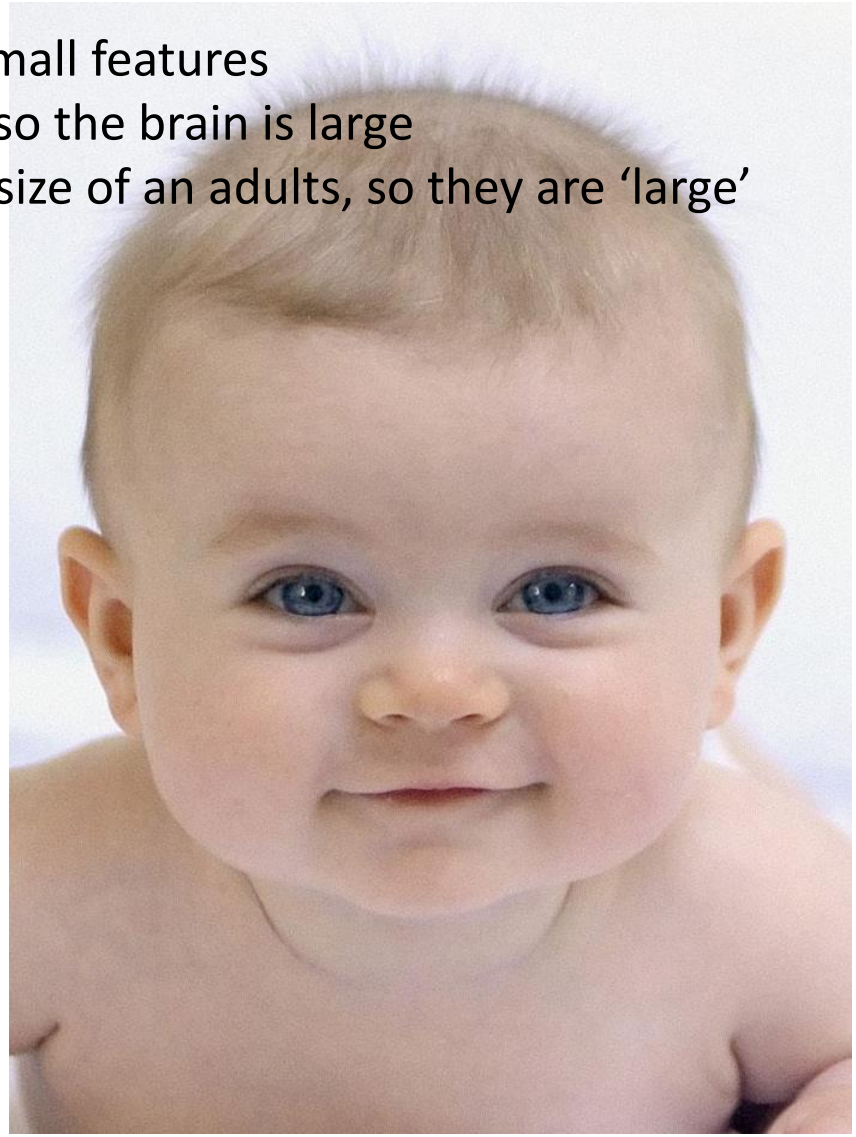
The science of 'cute'…

Pedomorphism : (young form) physical traits that make animals look juvenile

Kinderschema: the set of traits that we identify as cute and adorable

Why do we respond to that? Because we are genetically programmed to respond to the features of human babies

- Large head with disproportionately small features
  - Brain development occurs early, so the brain is large
  - Eyes are also more than half the size of an adults, so they are ‘large’



Include traits that make it approachable

Thank you

Carve like a Girl