# Sketching for Design

# What we're doing & why

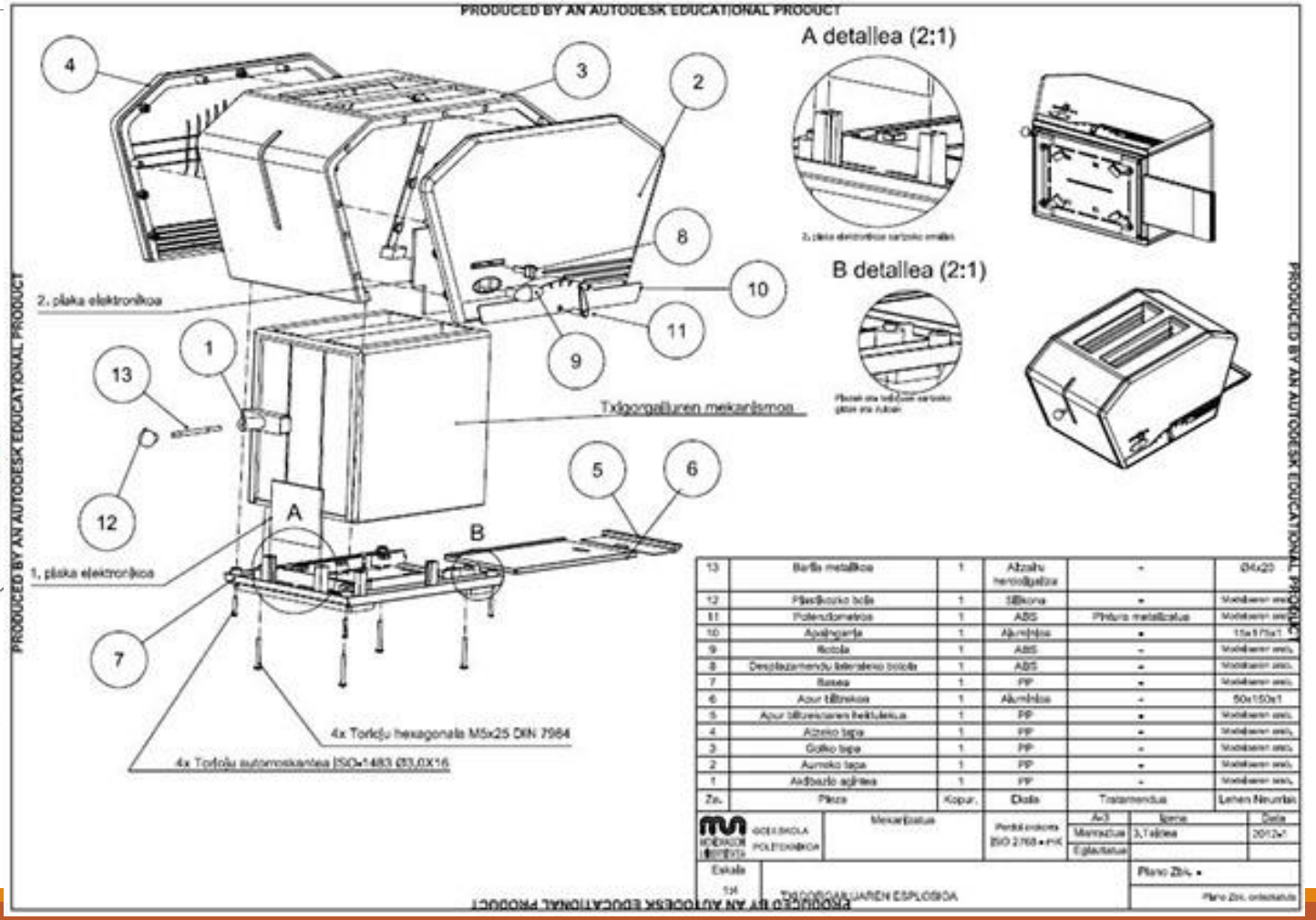
**What:** learning quick sketching

Industrial Design: Designing for manufactured products (we're less learning Industrial Design and more just glorified doodling, however)

**Why:** To quickly get across the concept of our designs

| Sketching | versus | CAD Design |
|---|---|---|
| Faster | | More precise/accurate |
| It's reading/use is more accessible to non-technically trained individuals | | Easier to replicate once made |
| Focus is on creativity and ideation | | Focus is on detail |

# Sketching vs Drafting



# Terms to Know and Tools You Need

**Terms**

Perspective

Shading

Shadows

**Tools**

- Pencil (preferred) or pen (accepted grudgingly)
- Blank paper
- Ruler (optional, but preferably you don't use one)

**Geometric Shapes to know**

2D

- Circle
- Triangle
- Rectangle/square

3D

- Prism
  - Special case: cylinder
- Pyramid
  - Special case: cone
- Sphere

# 2D Shapes– Draw 2 of Each

Rectangle

Triangle

Circle

Key to success #1: Don’t overcomplicate this

# 2D Shapes in a 3D Space– Draw 2 of Each

Rectangle

Triangle

Circle

See my “how to notes” linked on my blog for step by step instructions if you wish to follow along

Key to success #2: Choose a vanishing perspective point and extend lines from it

Key to success #3: Draw shapes existing on a rectangle in 3D Space

# 3D Shapes– Draw 2 of Each

Cube

Prisms (aside from cubes/cylinders)

Pyramid (aside from a cone)

Cylinder

Cone

Sphere

See my “how to notes” linked on my blog for step by step instructions if you wish to follow along

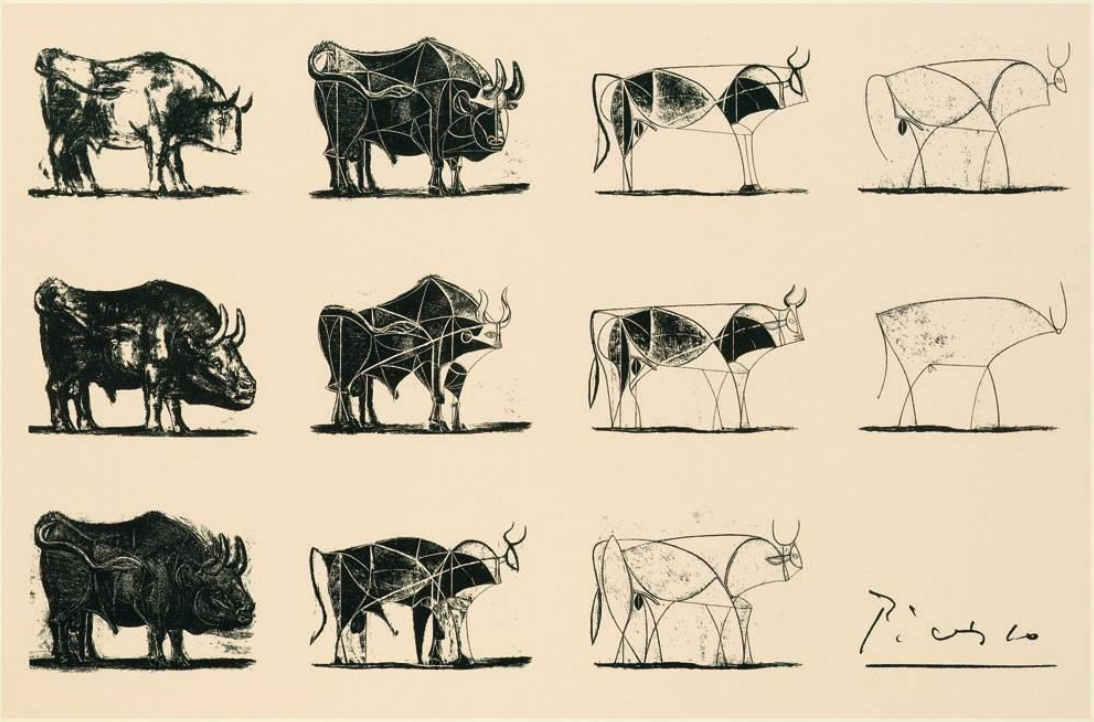
Key to success #4: Draw shapes existing inside a cube and focus on key points

Key to success #5: Add shading to accentuate the 3D nature

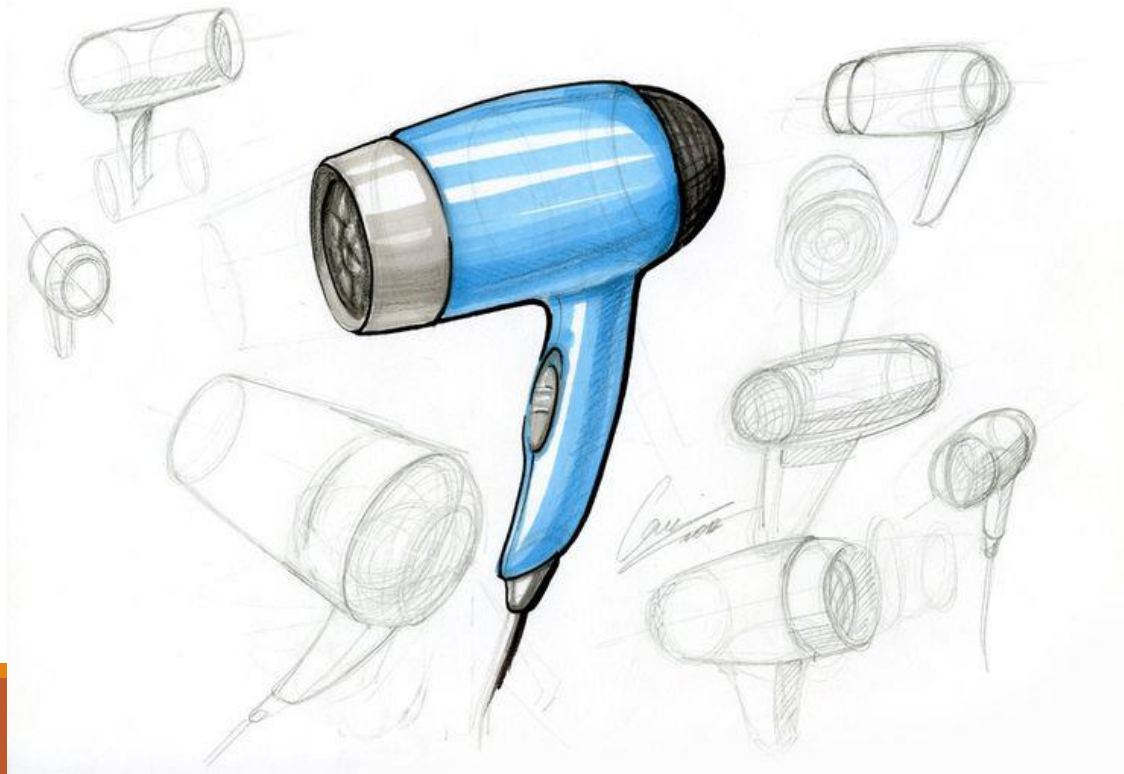
# Now putting it together

"Things" are made of compositions of basic shapes

Kind of like Legos!



Picasso's decomposition work



# Putting 3D shapes together

Create an original and unique drawing of something that you could make

- Can be anything **aside from a table** – I don't want to box in our creativity yet
- Look for how this shape can be broken down into simpler shapes
- Doesn't have to be a perspective drawing – it may make more sense for you to have side/front views (Orthographic)

Key to success #6: Draw the rough outline first and then come back and add detail later

Key to success #7: Add notes to your drawing to help explain aspects that are tricky to get across in drawing

(for example, an arrow can show how a hinge moves, or writing "button" can really help someone know that some weird blob is a button

Key to success #8: Look for symmetry

Key to success #9: Don't stress over perfection

[*PAUSE FOR INTERMISSION]*

# Table design

What is the purpose of a desk/table?

- Aside from this, what purpose can a table serve

What do you do at a desk?

List of functions we wish to accomplish

- Criteria vs constraints
- Besides a desk, how can these functions be accomplished

# Table Design Continued

Come up with a design (or designs)

- Quantity over quality
- There's no such thing as "stealing" someone else's idea, we're collaborating

When we're happy with our designs, come up with an exhaustive list of parts and materials you will need to make your table