

Squash, Stretch, and Bounce!

The Twelve Principles of Animation

Twelve Principles of Animation

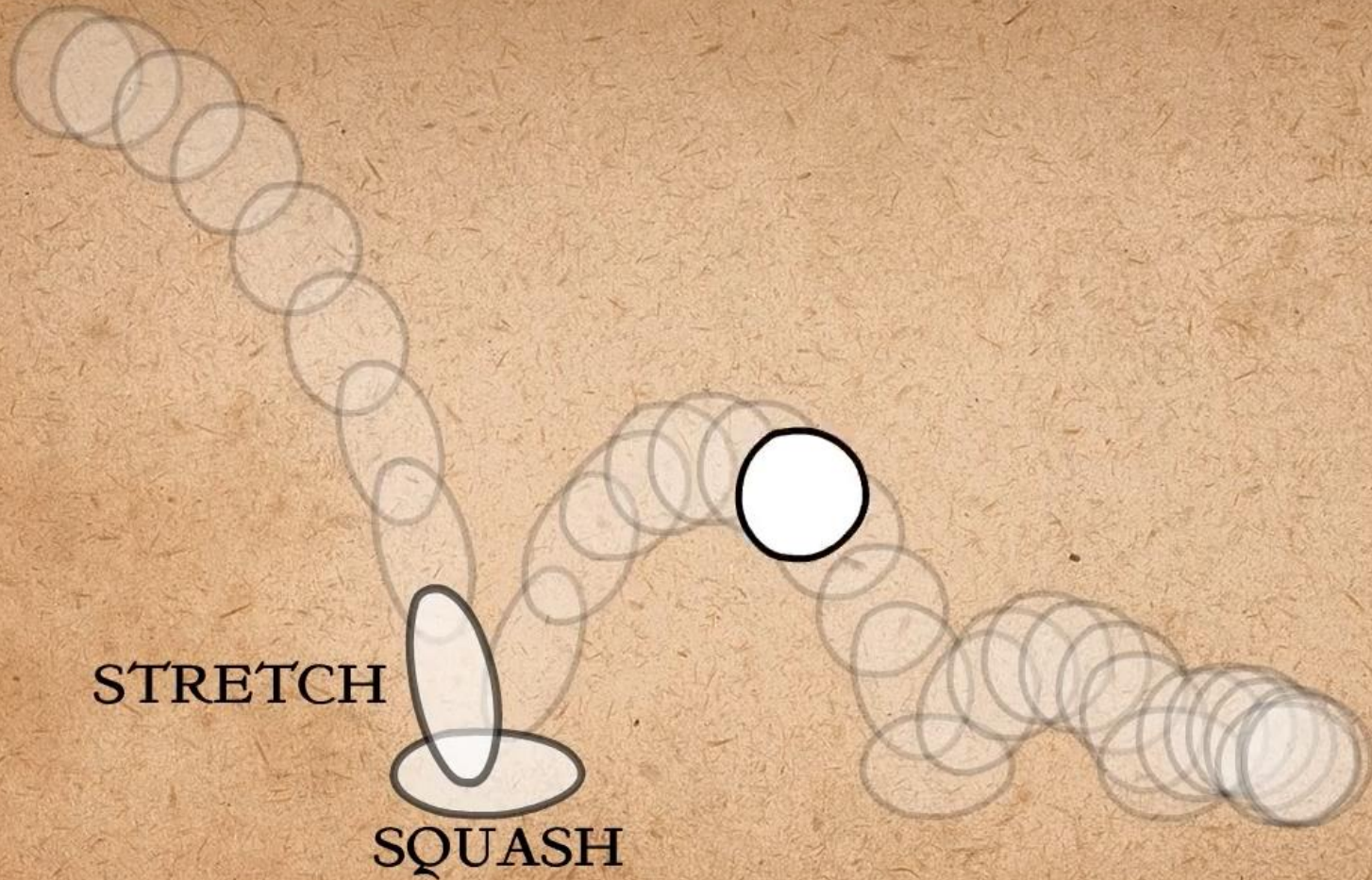
1. Squash and Stretch.
2. Anticipation.
3. Staging.
4. Straight Ahead Action and Pose to Pose.
5. Follow Through and Overlapping Action.
6. Slow In and Slow Out.
7. Arcs.
8. Secondary Action.
9. Timing.
10. Exaggeration.
11. Solid Drawing.
12. Appeal.

Twelve Principles of Animation

■ THE ILLUSION OF LIFE

Source: <https://vimeo.com/93206523>

1. Squash and Stretch

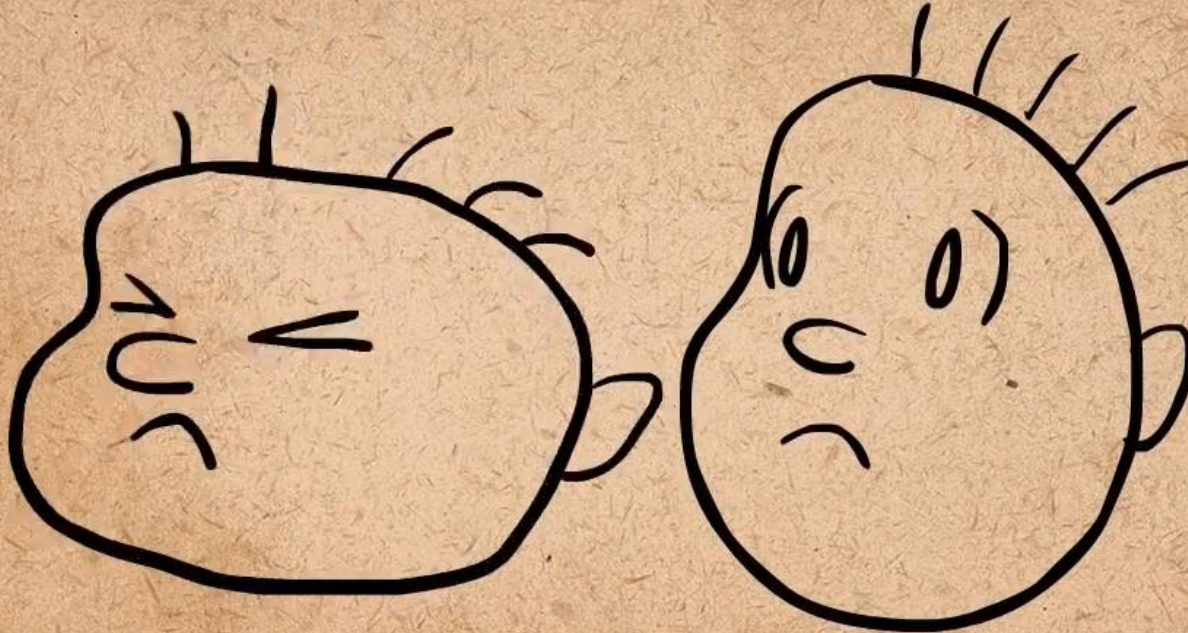


Source: <https://www.youtube.com/watch?v=haa7n3UGyDc>

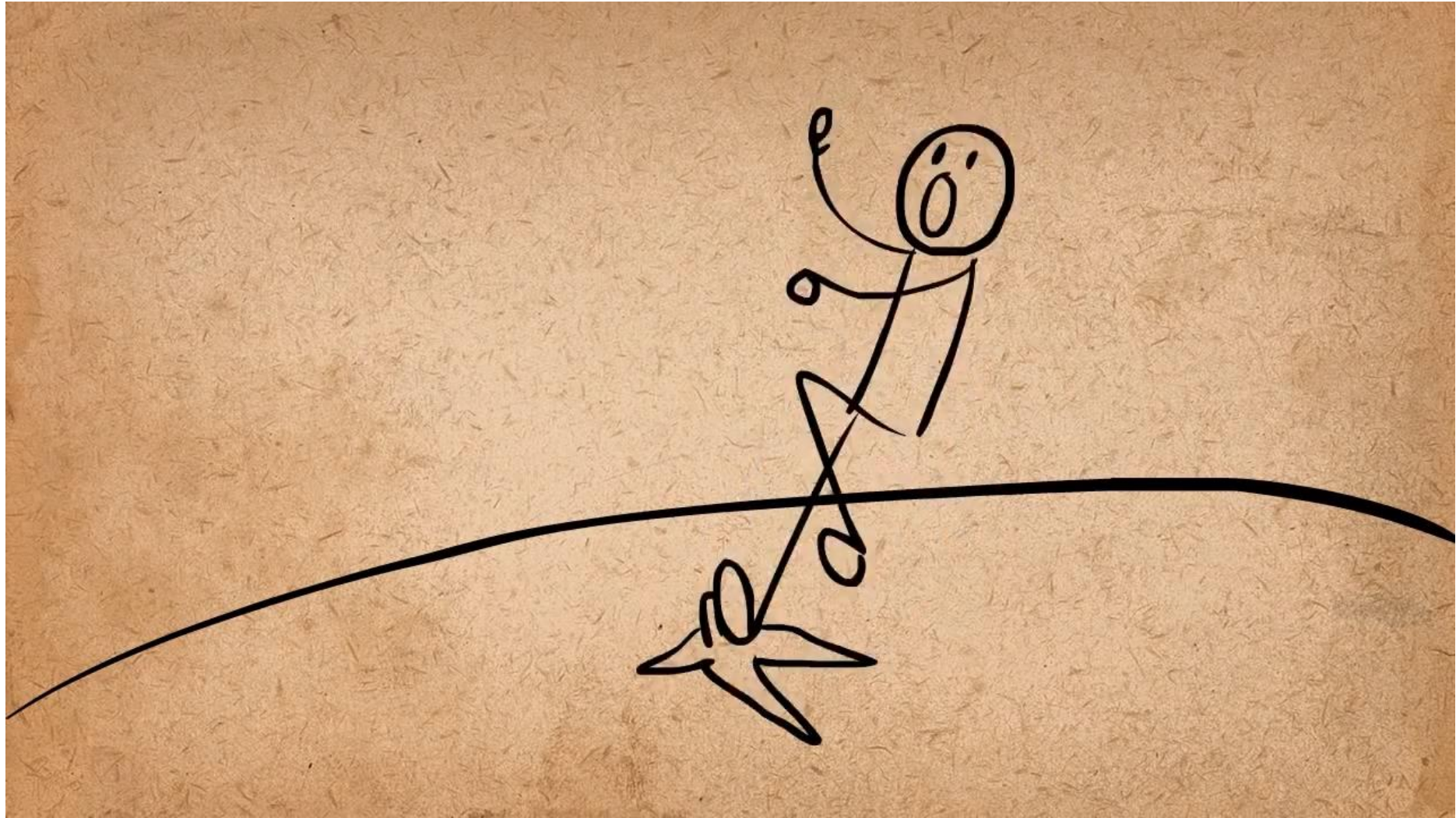
2. Anticipation

with
anticipation

without
anticipation

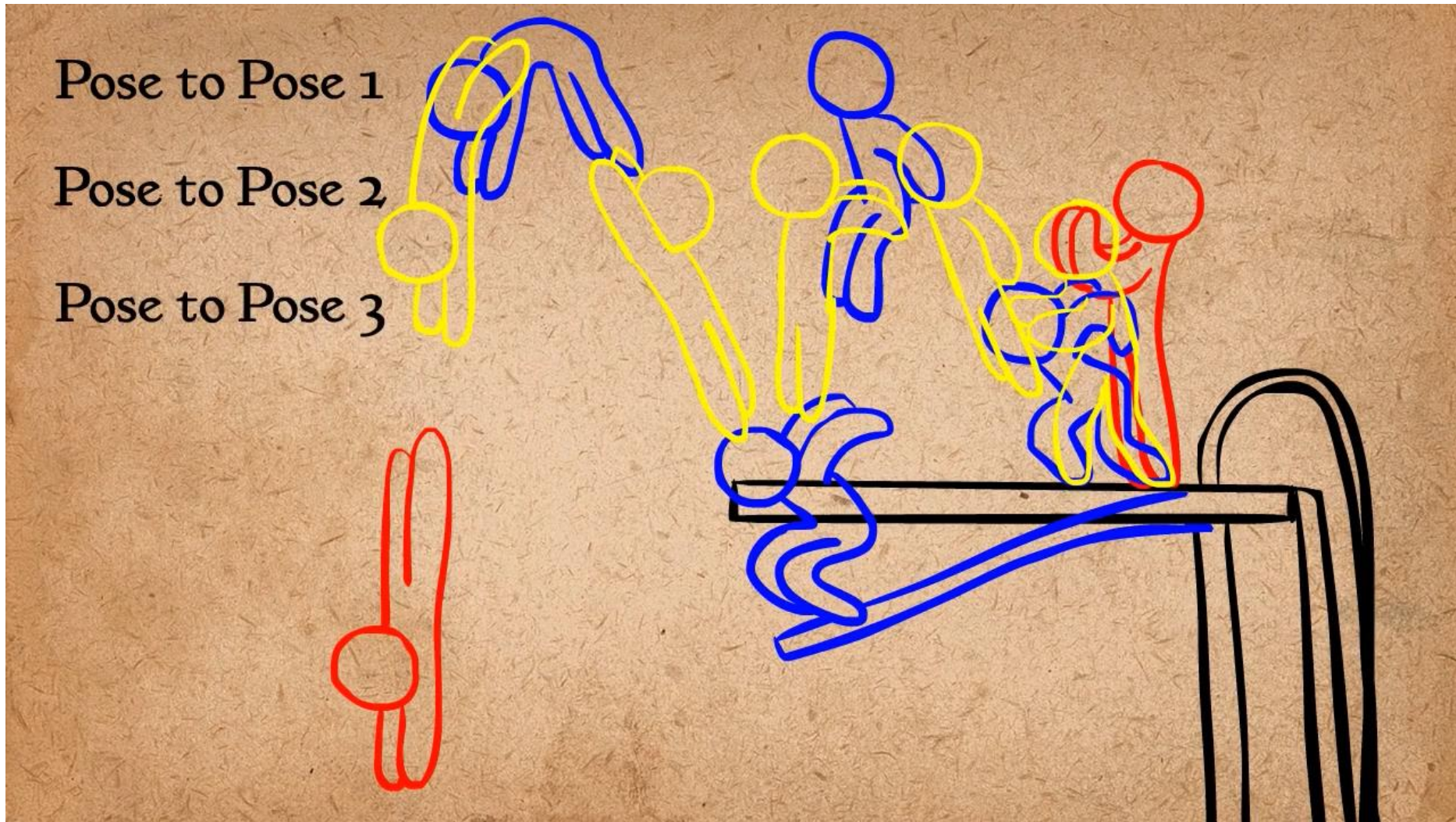


3. Staging



Source: <https://www.youtube.com/watch?v=u-SXLaQGg50>

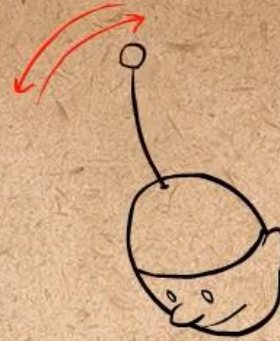
4. Straight Ahead Action and Pose to Pose.



Source: <https://www.youtube.com/watch?v=v8quCbt4C-c>

5. Follow Through and Overlapping Action.

Follow Through



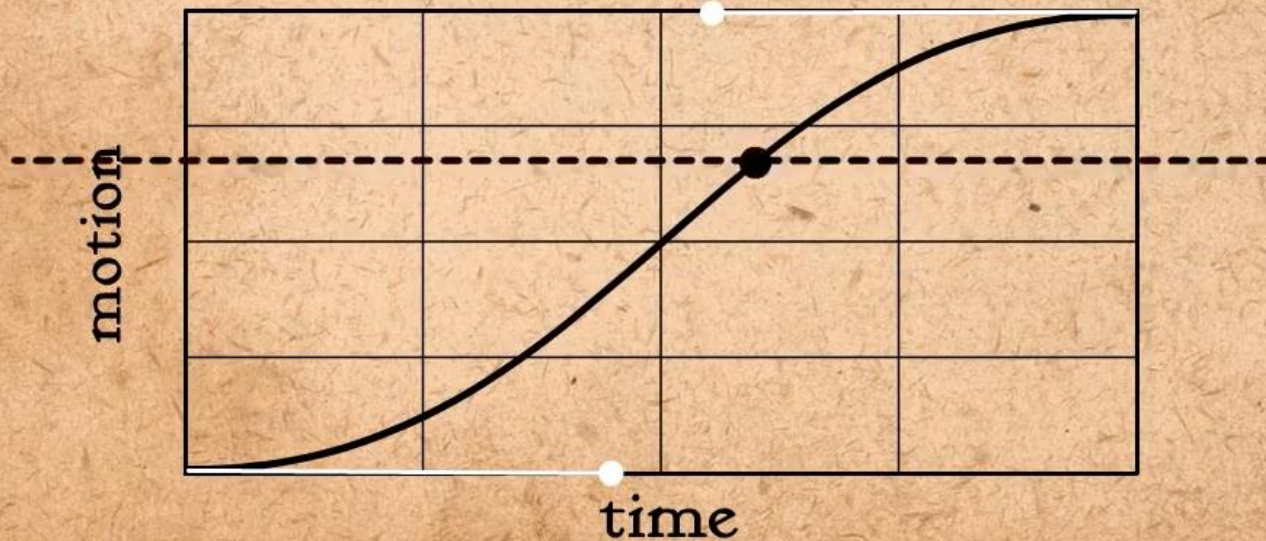
Overlapping Action



Drag

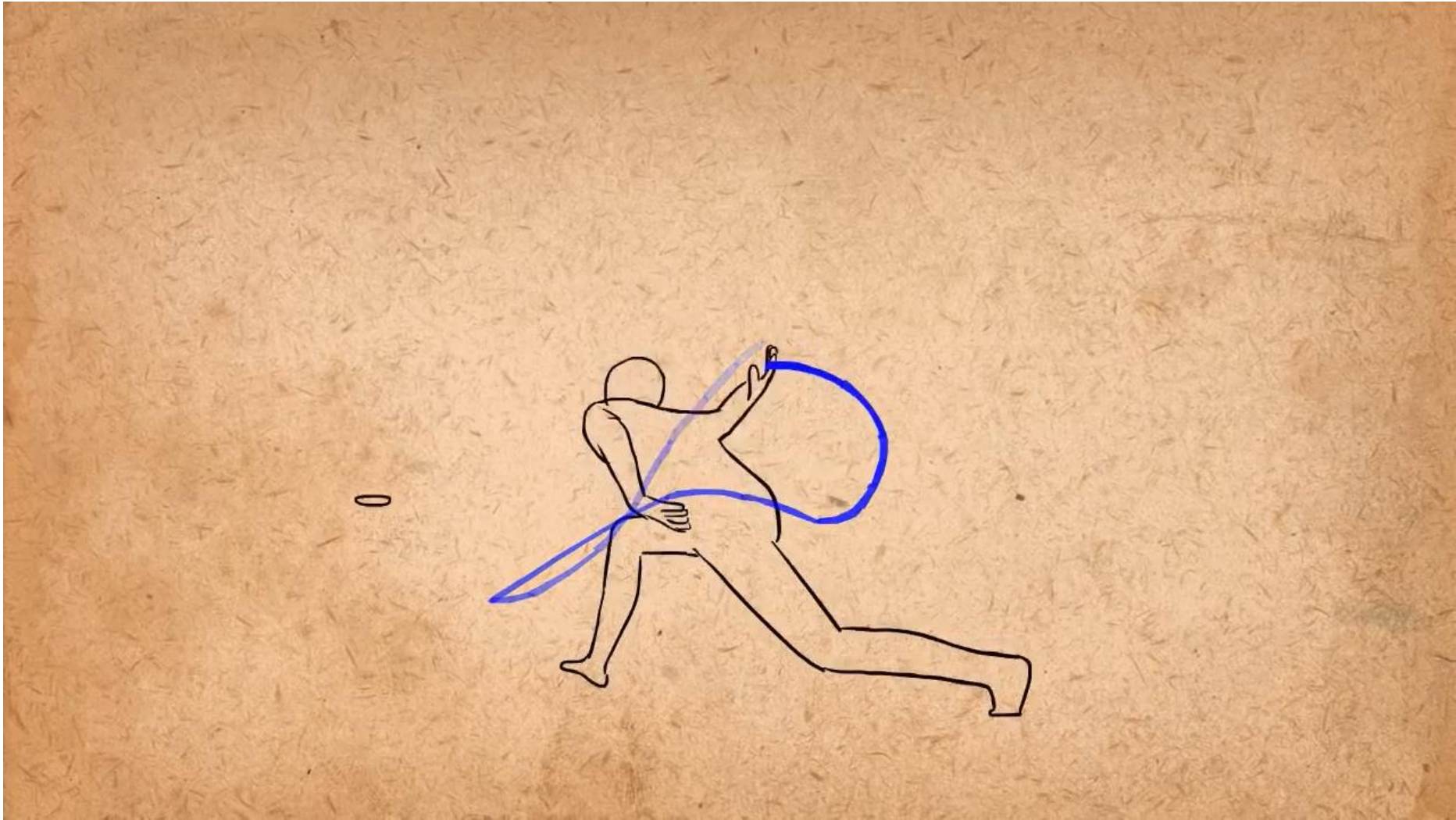


6. Slow In and Slow Out.



Source: <https://www.youtube.com/watch?v=fQBFsTqbKhY>

7. Arcs.



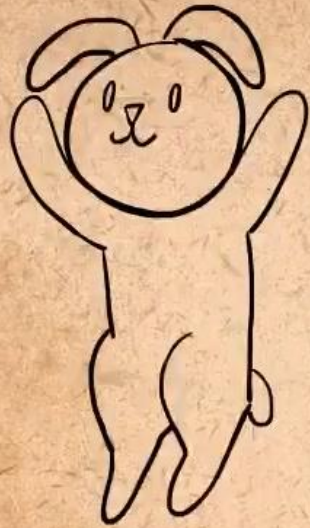
Source: https://www.youtube.com/watch?v=l1_tZ9LhJD4

8. Secondary Action.



Source: <https://www.youtube.com/watch?v=MjBHWw1TbP4>

9. Timing.

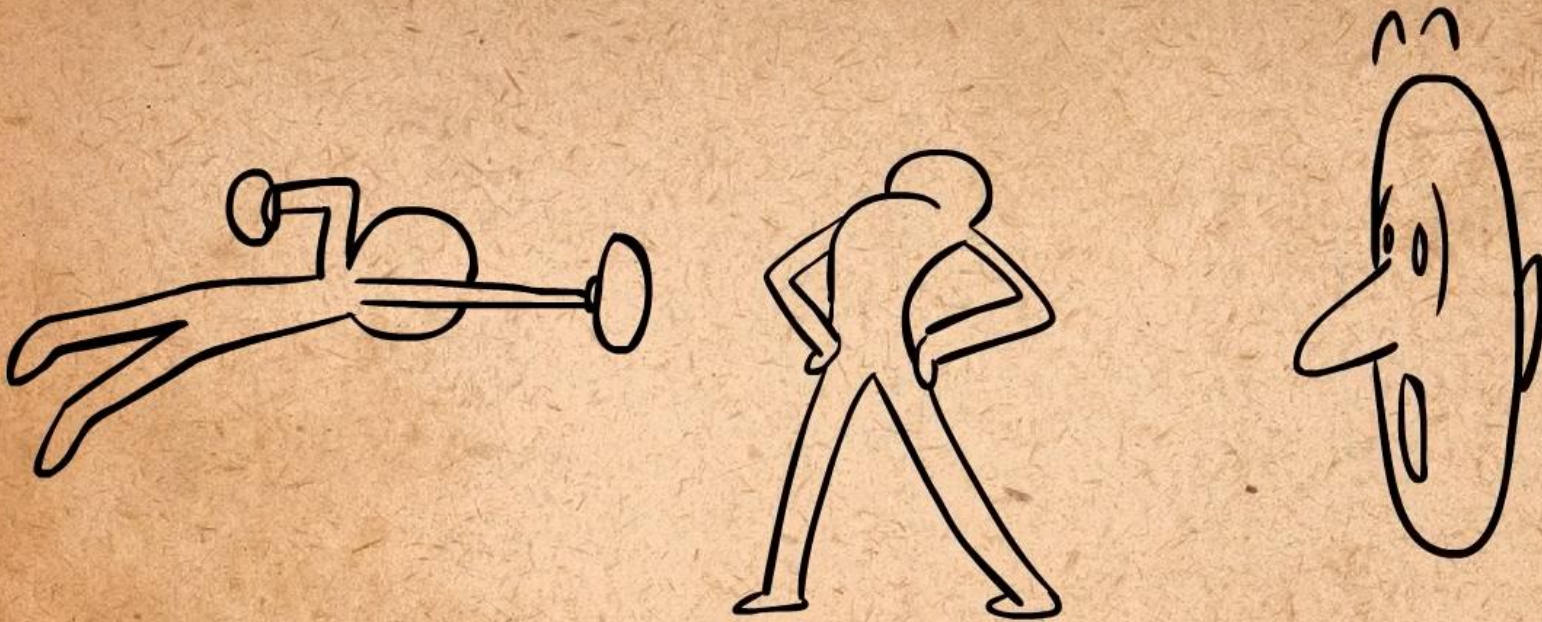


ones



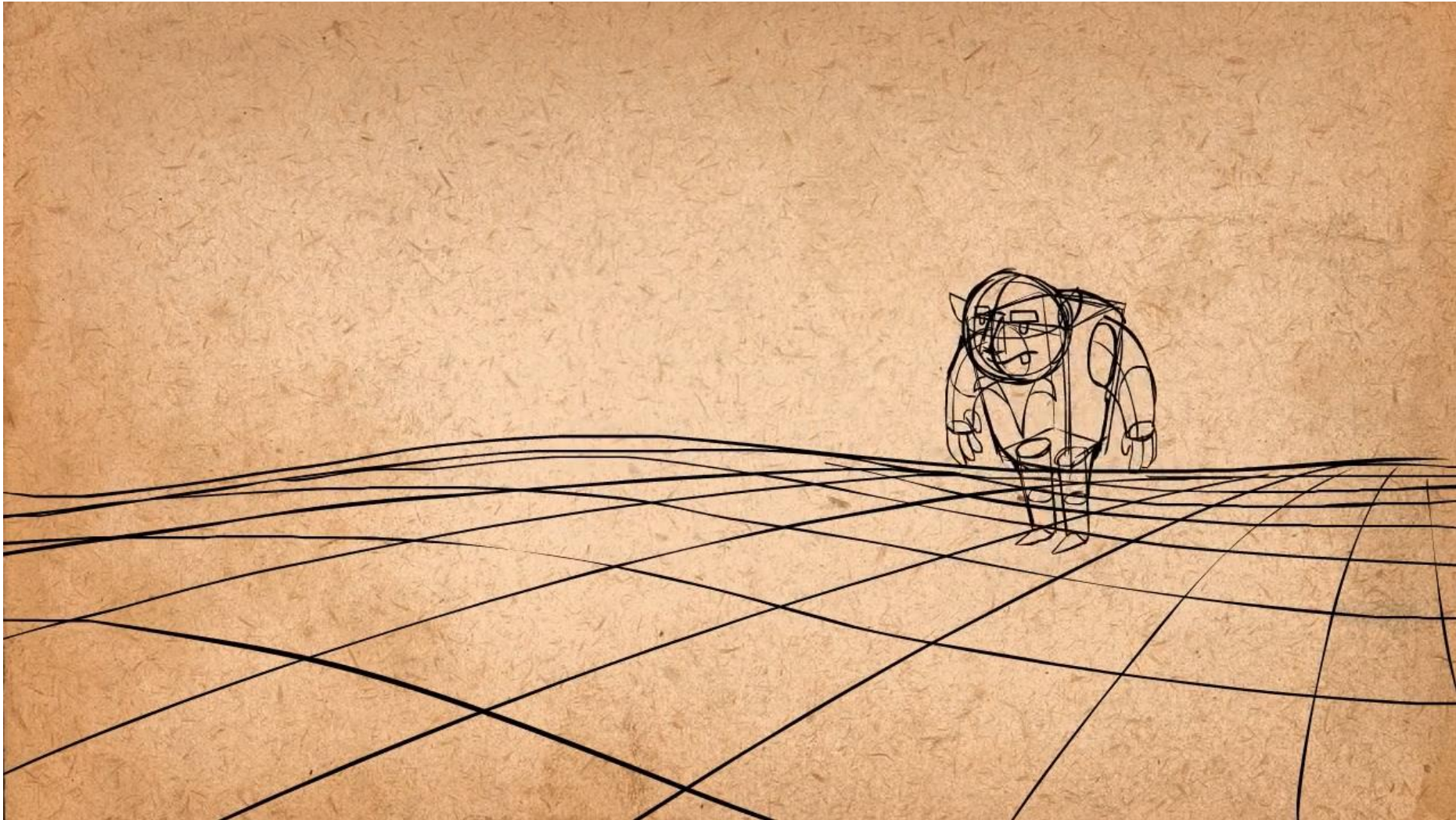
twos

10. Exaggeration.



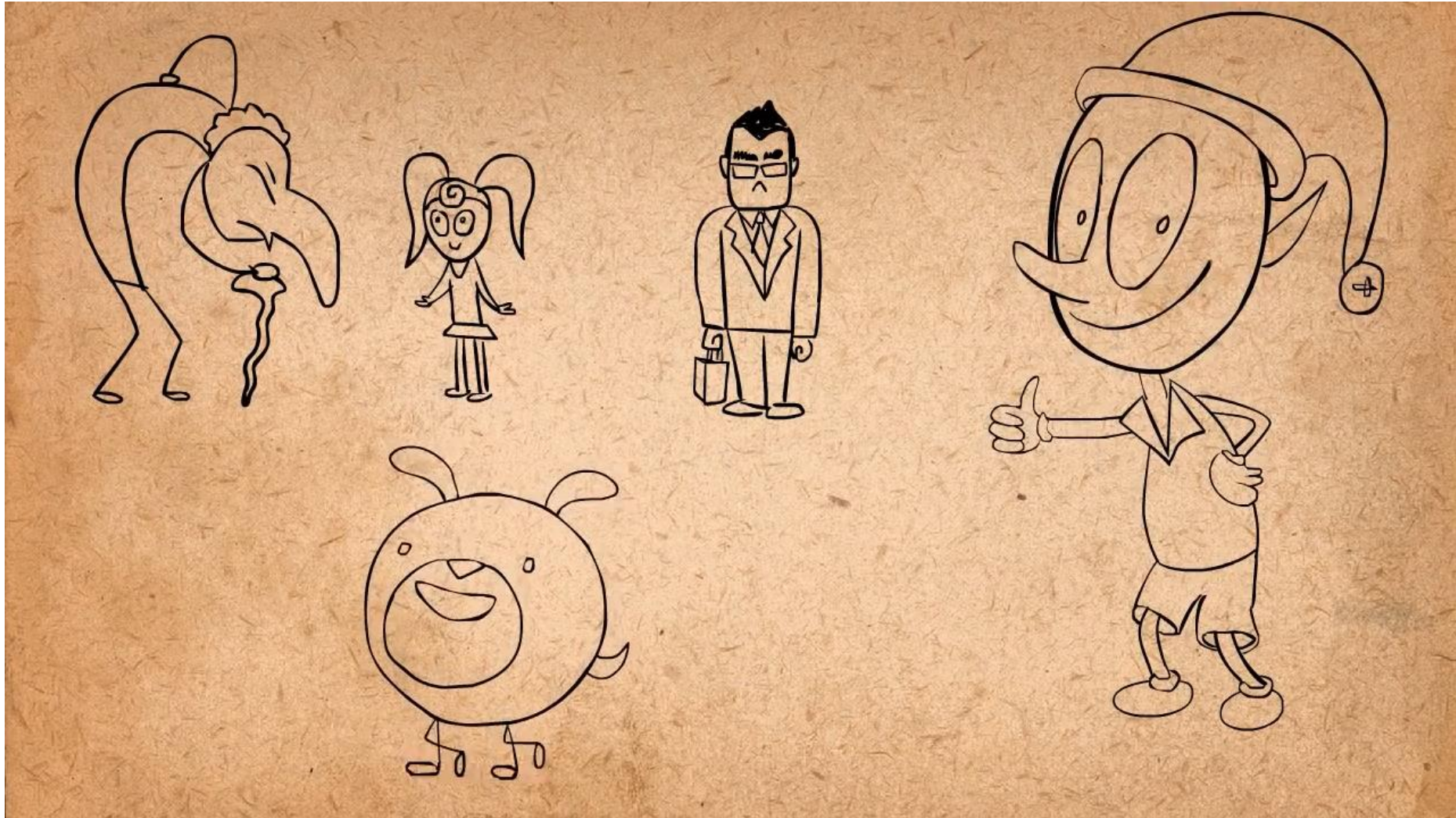
Source: <https://www.youtube.com/watch?v=u-SXLaQGg50>

11. Solid Drawing.



Source: <https://www.youtube.com/watch?v=7An0jukOkCI>

12. Appeal.



Source: https://www.youtube.com/watch?v=_SplEuWp0Yw

Recommended reading

The Illusion of Life: Disney Animation

by Frank Thomas and Ollie Johnston

The Animator's Survival Kit

by Richard Williams

Cartoon Animation

by Preston Blair