

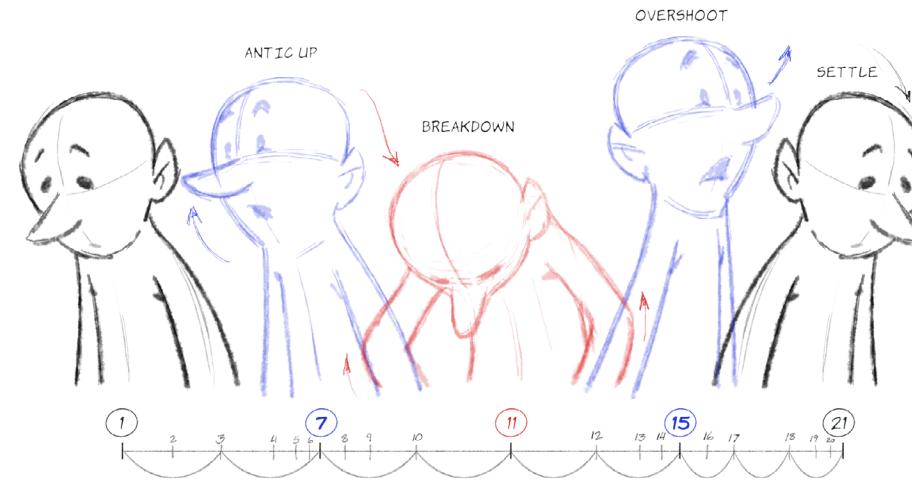
# Animating in 2D: Breakdowns and Thumbnails

with Dermot O' Connor

## thumbnails & breakdowns

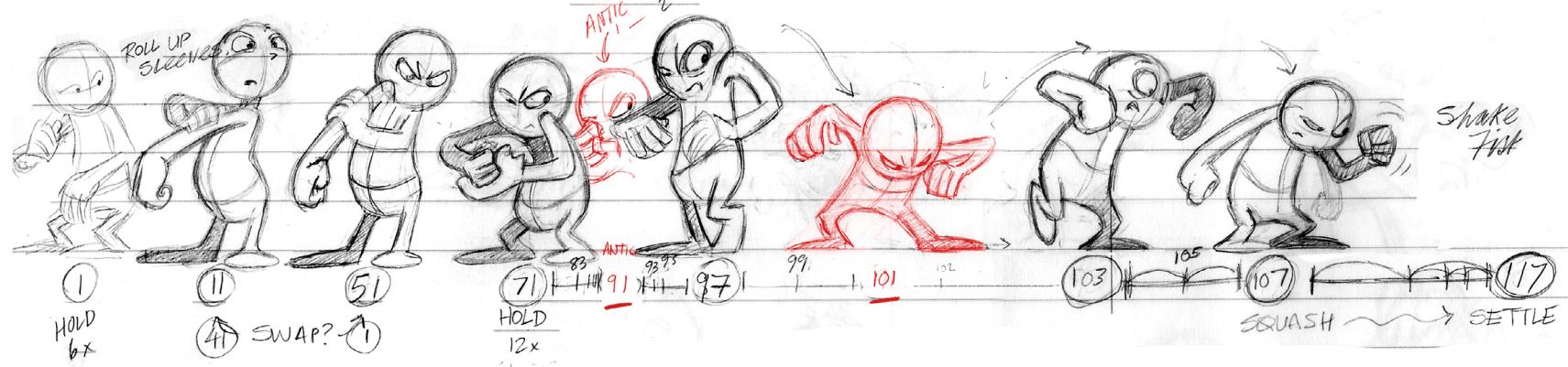
THE KEY TO CREATING HIGH QUALITY ANIMATION IS TO PLAN THE ACTION WITH THUMBNAILS. THUMBS CAN BE TIGHT OR VERY LOOSE. THE IMPORTANT THING IS THAT YOU CAN USE THEM AS VISUAL REFERENCE FOR THE FINAL ANIMATION.

I USUALLY DRAW MY THUMBS ON LINED NOTE PAD PAPER, OR IN PHOTOSHOP, USING A DRAWING TABLET. YOU MAY FIND DRAWING ON PAPER WITH PENCILS LESS STRESSFUL. IT CAN BE DONE ANYWHERE. I OFTEN DRAW MINE IN COFFEE SHOPS.



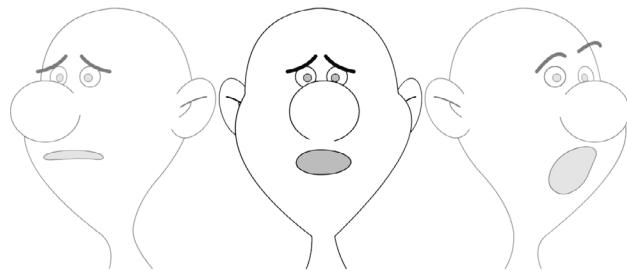
TO IMPROVE THE QUALITY OF THE SCENE ADD INTERESTING MOVEMENTS ON THE BREAKDOWN ACTIONS.

THE BREAKDOWN DRAWING HERE IS ILLUSTRATED IN RED FOR CLARITY.

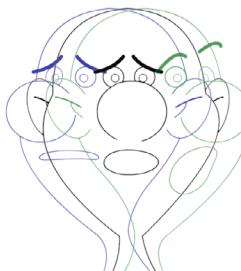


## BREAKDOWN VARIATIONS:

HALFWAY BETWEEN THE KEYS.



FRAMES OVERLAIDED FOR REFERENCE



DIP THE HEAD.



FRAMES OVERLAIDED FOR REFERENCE



RAISE THE HEAD.



FRAMES OVERLAIDED FOR REFERENCE



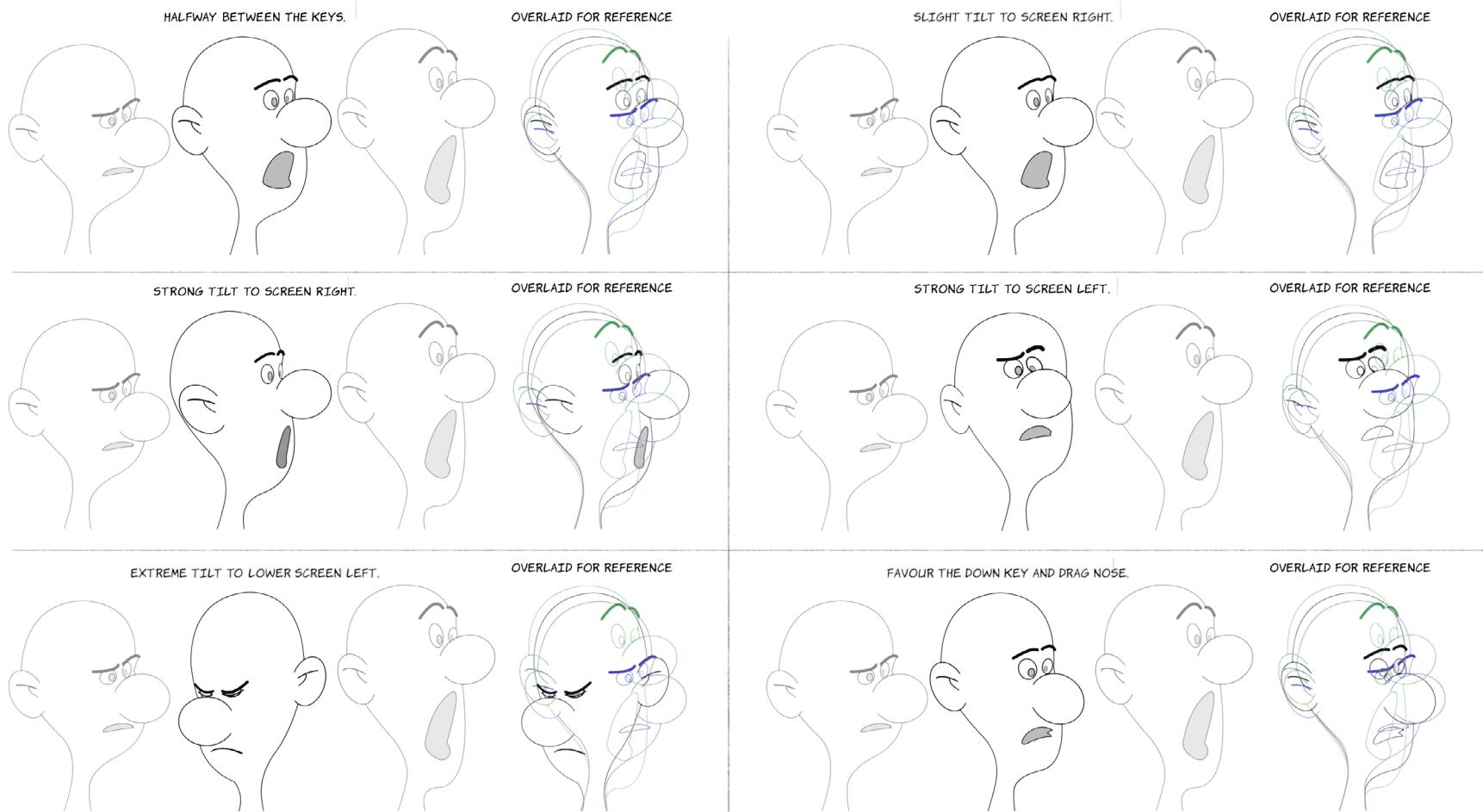
TIILT THE HEAD DOWN AND FAVOR THE FIRST KEY.



FRAMES OVERLAIDED FOR REFERENCE



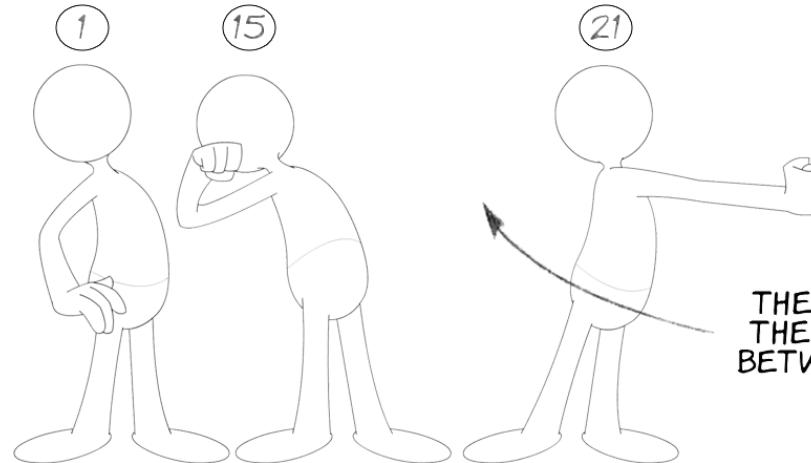
## BREAKDOWN VARIATIONS:



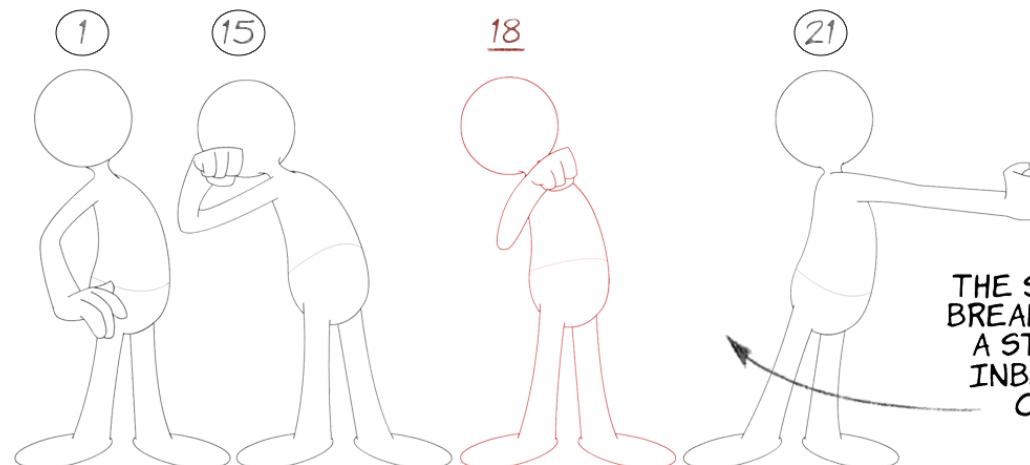
## FINE TUNING AN ACTION THROUGH BREAKDOWNS

TAKE A SIMPLE ACTION WITH THREE EXTREMES:

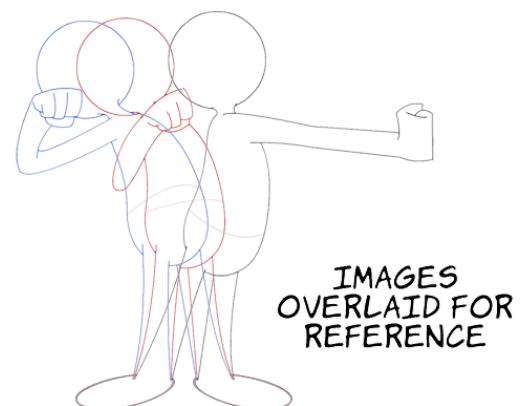
- (1) START POSE
- (15) ANTICIPATE
- (21) IMPACT



THE BREAKDOWN IS THE BIGGEST POSE BETWEEN (15) AND (21).



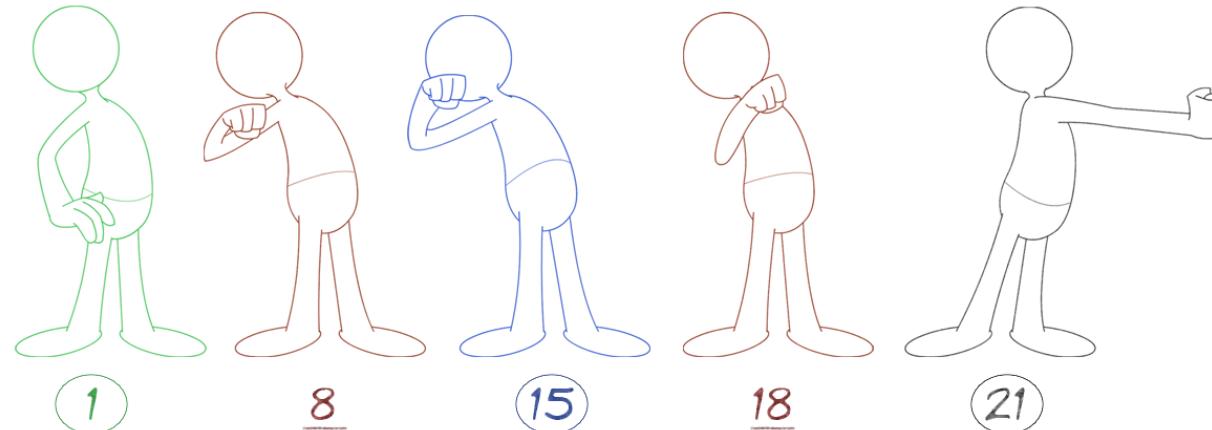
THE SIMPLEST BREAKDOWN IS A STRAIGHT INBETWEEN, ON #18.



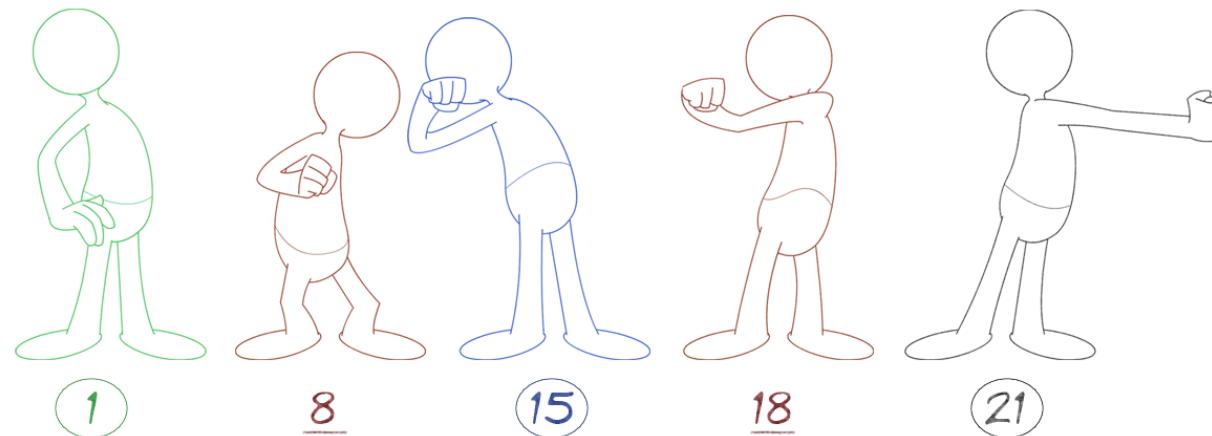
IMAGES OVERLAID FOR REFERENCE

## FINE TUNING AN ACTION THROUGH BREAKDOWNS

ON THE UPPER ROW THE BREAKDOWNS ARE POSED STRAIGHT. THEY ARE DIRECTLY INBETWEEN THE EXTREMES.

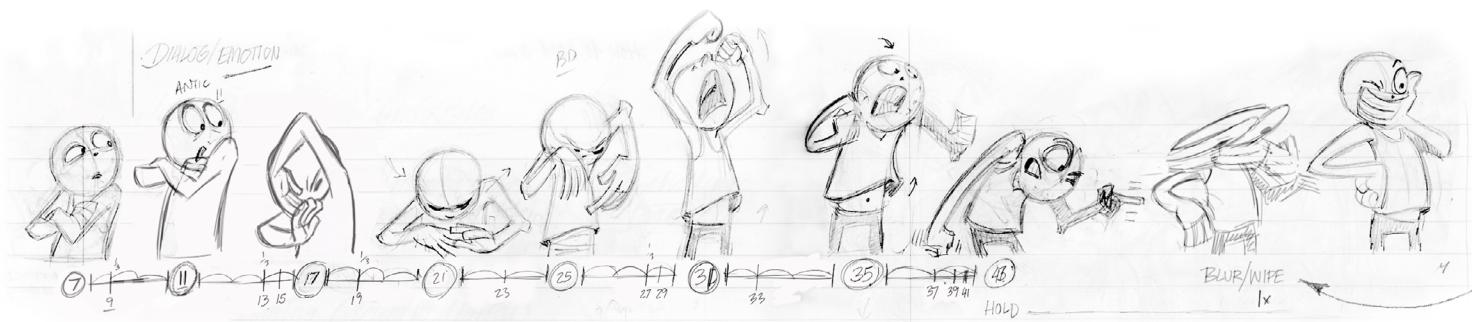
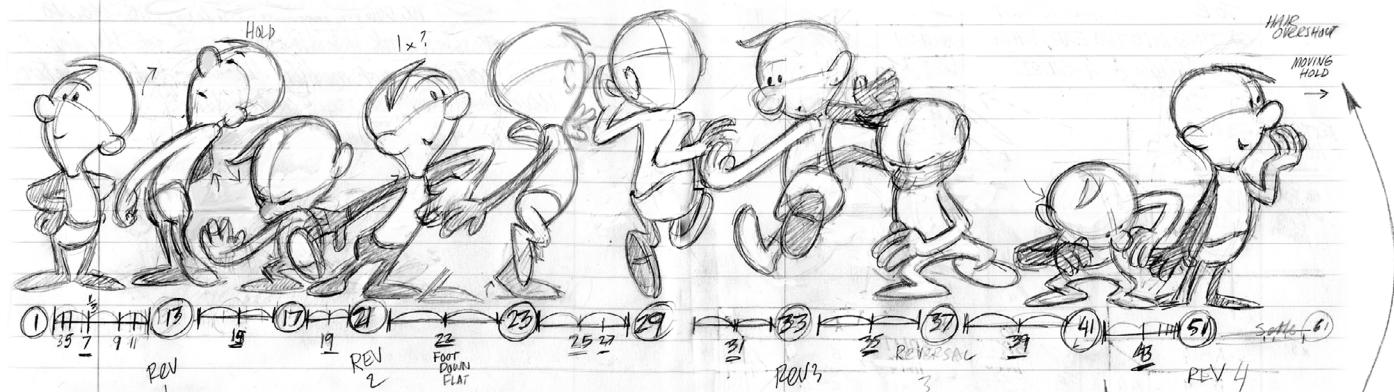


ON THE LOWER ROW THE BREAKDOWNS ARE POSED MORE DYNAMICALLY. THE BREAKDOWN ON #8 DIPS TO ACCENTUATE THE ANTICIPATION. THE BREAKDOWN ON #18 LEADS WITH THE SHOULDER BEFORE THE FIST IMPACTS.

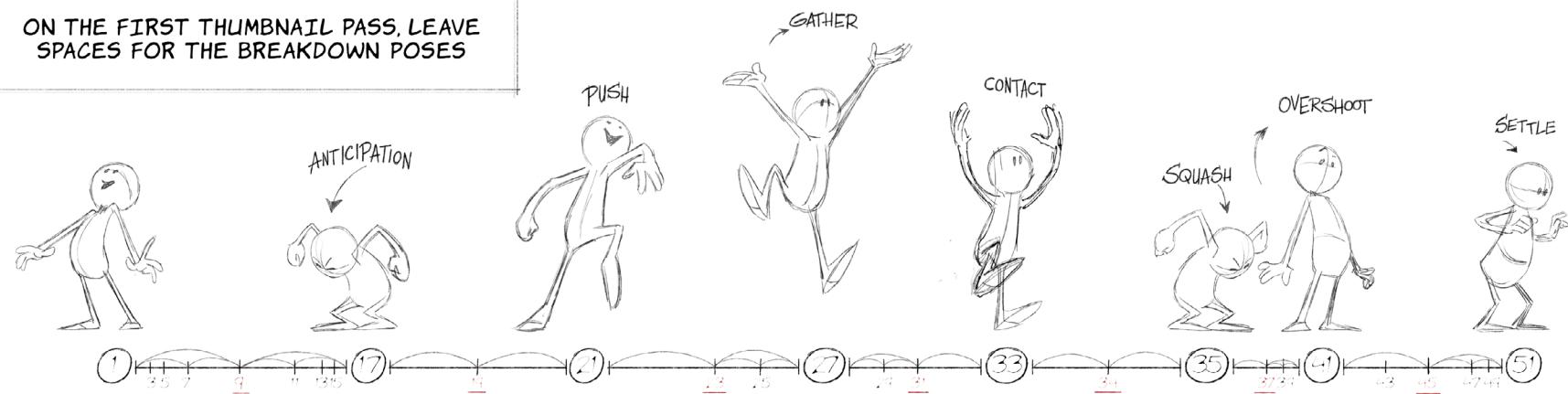


THUMBNAILS CAN BE AS LOOSE OR AS DETAILED AS YOU LIKE.

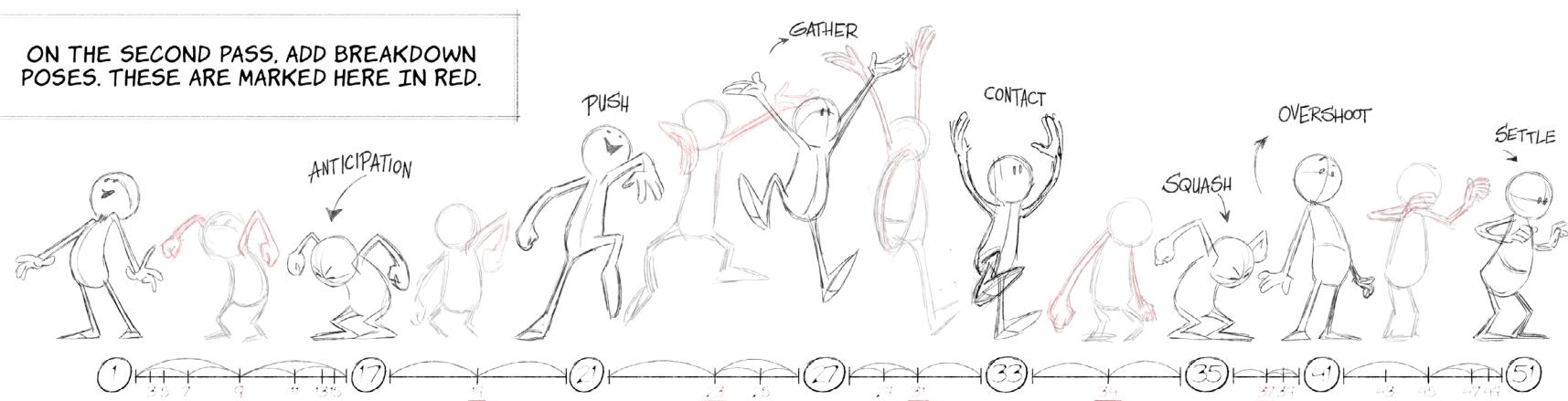
THESE WERE SKETCHED IN A LINED NOTEBOOK WHILE SITTING IN A COFFEE SHOP.



ON THE FIRST THUMBNAIL PASS, LEAVE SPACES FOR THE BREAKDOWN POSES

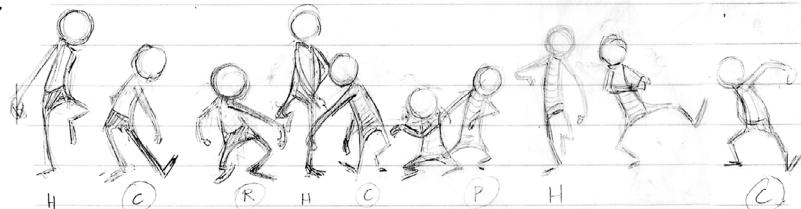


ON THE SECOND PASS, ADD BREAKDOWN POSES. THESE ARE MARKED HERE IN RED.

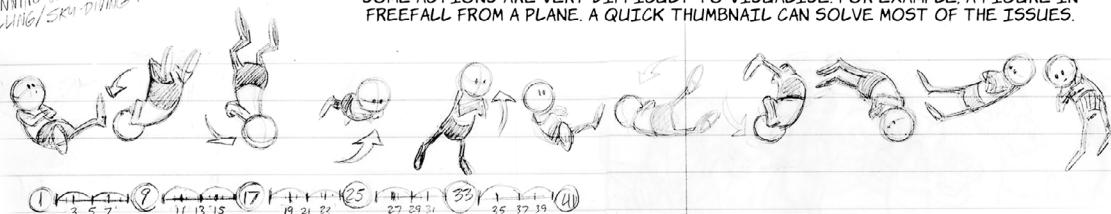


## PLANNING TRICKY ACTIONS WITH THUMBNAILS

A DRUNKEN OR DIZZY WALK CAN BE PLANNED IN ADVANCE WITH A THUMBNAIL PROCESS. LINED NOTE PAPER IS USEFUL FOR KEEPING THE CHARACTER IN SCALE.

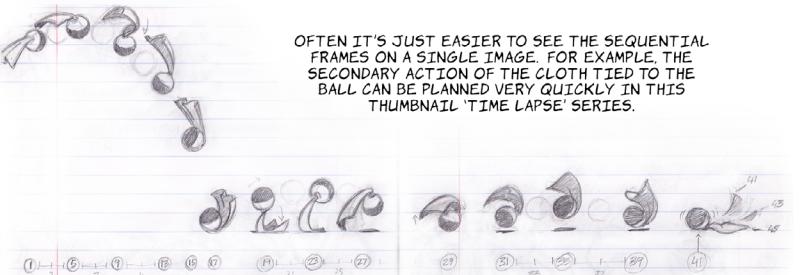


SPINNING WHILE  
FALLING / SKY-DIVING

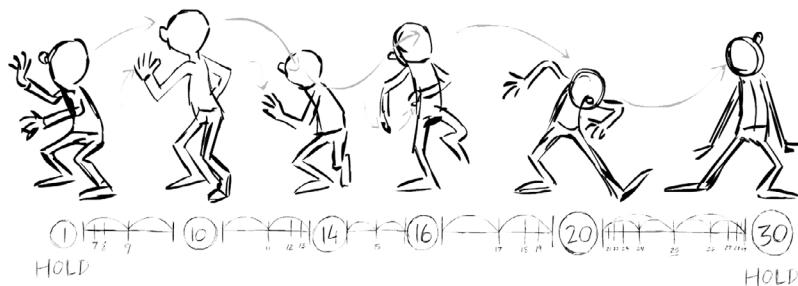


SOME ACTIONS ARE VERY DIFFICULT TO VISUALISE. FOR EXAMPLE, A FIGURE IN FREEFALL FROM A PLANE. A QUICK THUMBNAIL CAN SOLVE MOST OF THE ISSUES.

OFTEN IT'S JUST EASIER TO SEE THE SEQUENTIAL FRAMES ON A SINGLE IMAGE. FOR EXAMPLE, THE SECONDARY ACTION OF THE CLOTH TIED TO THE BALL CAN BE PLANNED VERY QUICKLY IN THIS THUMBNAIL TIME LAPSE' SERIES.

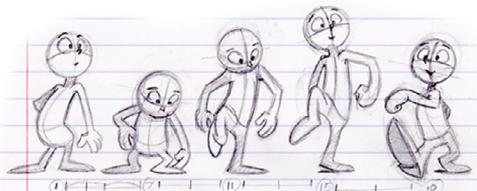
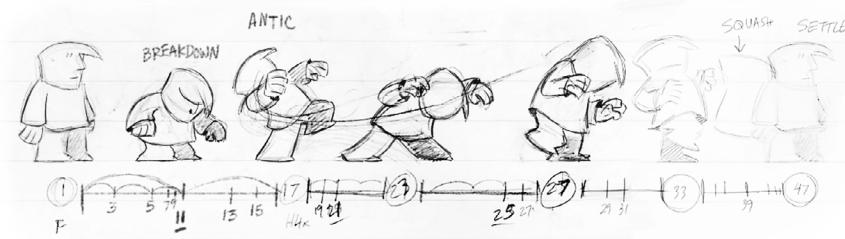


THUMBNAILS CAN BE TIGHTLY DRAWN, BUT VERY ROUGH STICKMEN CAN ALSO BE USED. THE IMPORTANT THING IS THAT THE POSES COMMUNICATE THE ACTION IN THE SCENE.



Animating in 2D: Breakdowns and Thumbnails with Dermot O'Connor

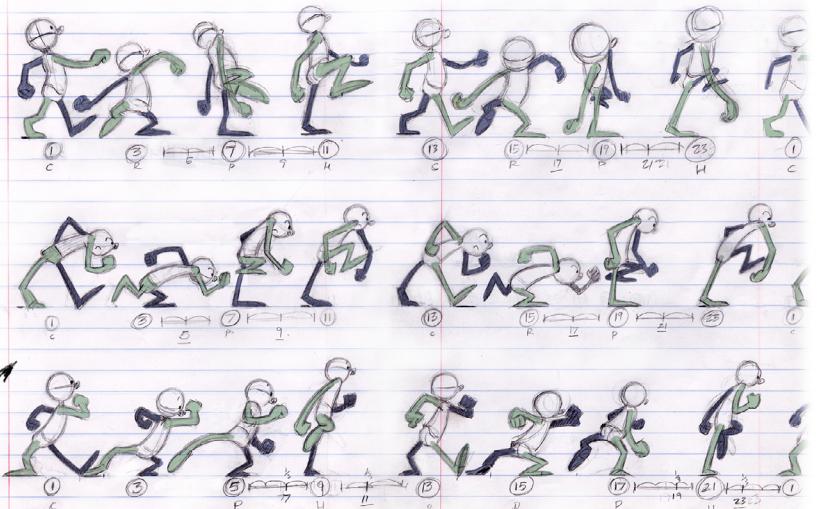
THUMBNAILING IS IMPORTANT WHEN WORKING WITH PUPPET/RIG SYSTEMS LIKE THOSE IN HARMONY/ADobe ANIMATE/FLASH. THUMBNAILS FORCE YOU TO 'PUSH' THE PUPPET INTO POSES THAT YOU MIGHT OTHERWISE TRY TO AVOID.



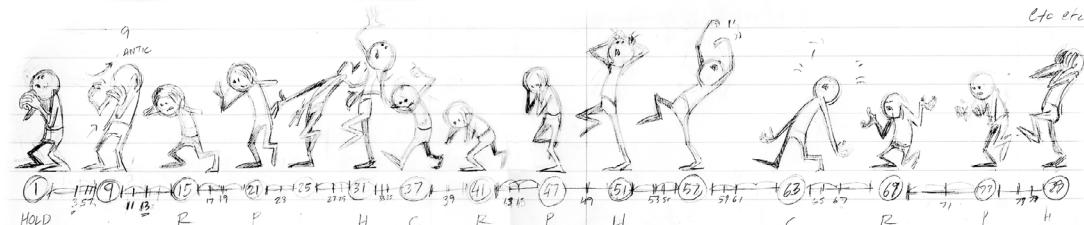
- Keep thumbnails simple as possible - essential elements only!



WALKS ARE A GREAT OPPORTUNITY TO USE THUMBNAILS. AS THEY ALLOW YOU TO PLAN THE ENTIRE CYCLE ON A SINGLE IMAGE. YOU HAVE FAR GREATER CONTROL OVER THE ACTION.

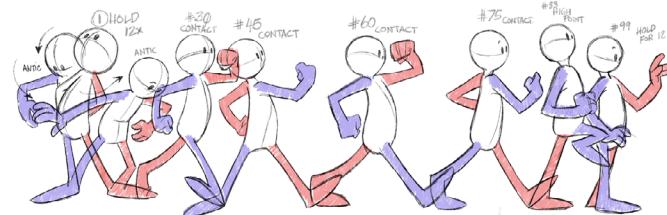


SCENES WHERE THE CHARACTER IS WALKING, ACTING AND TALKING ARE ANOTHER EXCELLENT TARGET FOR STRONG THUMBNAILING. THE MORE PLANNING YOU DO IN THUMBNAIL REHEARSAL, THE LESS TIME YOU'LL WASTE ON THE ANIMATION PROCESS. KEEPING YOUR WORK FRESH.

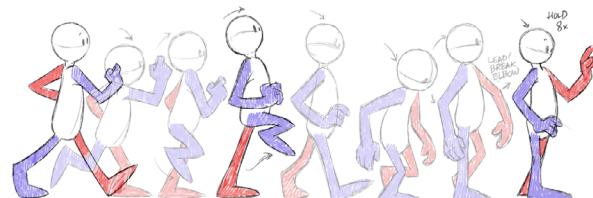
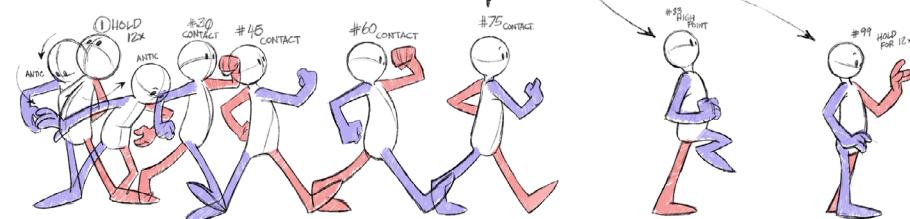


## OPENING UP THE THUMBNAILS

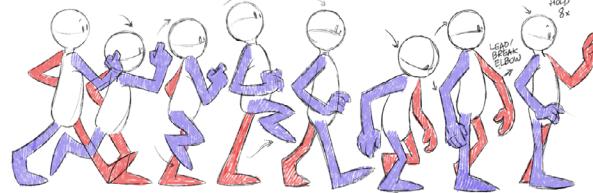
THE THUMBNAILS IN THE TOP ROW ARE OK. BUT THERE'S NO ROOM TO ADD EXTRA POSES TOWARD THE FINAL THREE DRAWINGS.



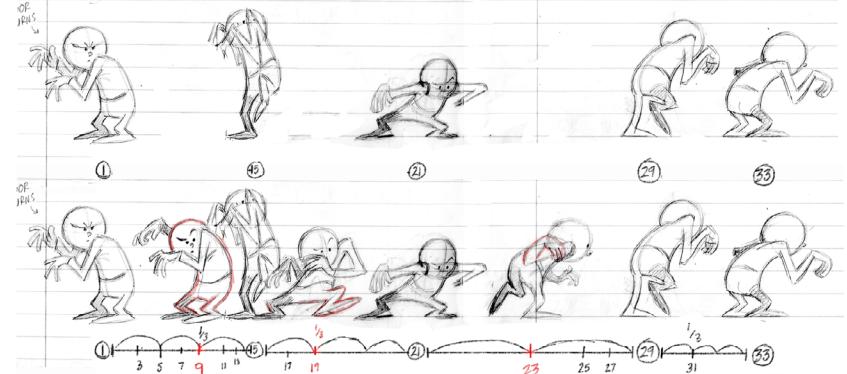
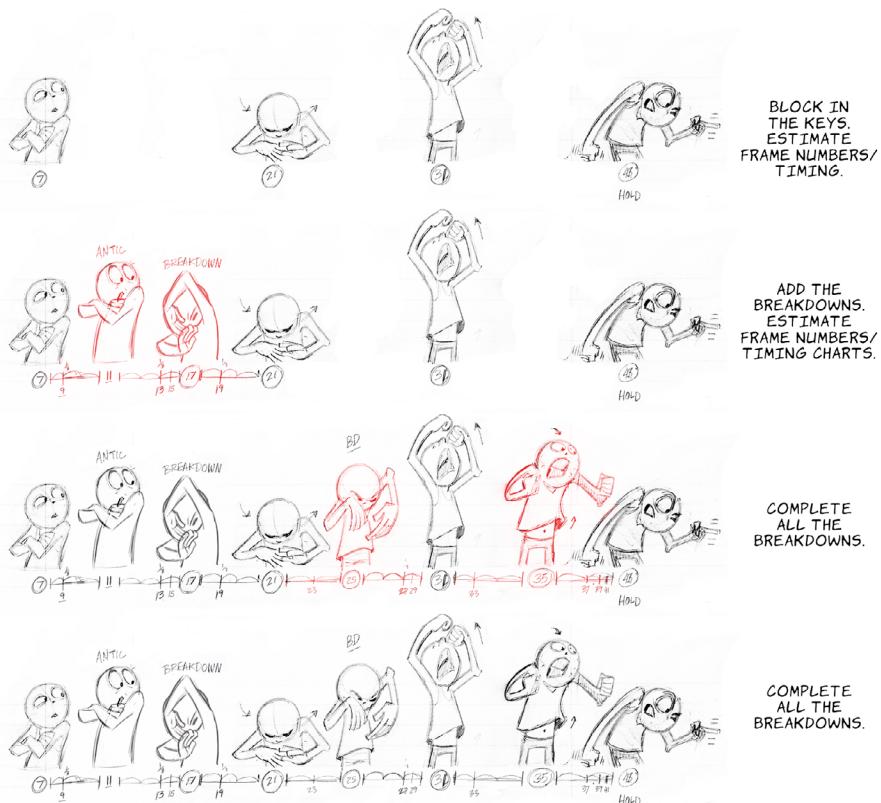
EITHER REDRAW THE THUMBNAILS WITH MORE SPACE, OR, IF YOU'RE DRAWING DIGITALLY WITH A TABLET, REARRANGE THE POSES TO CREATE MORE SPACE.



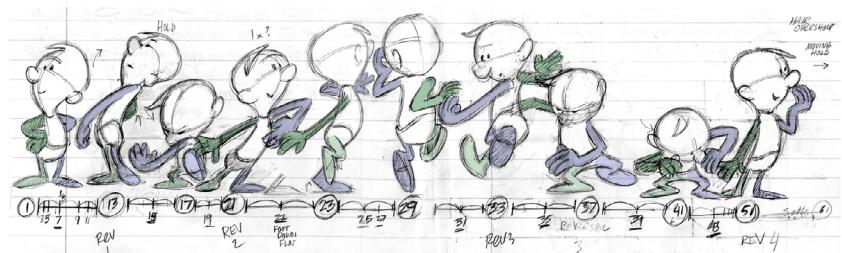
NOW YOU CAN ADD EXTRA THUMBNAILS AS NEEDED.



## PROCESS OF THUMBNAILING A SCENE:



ANOTHER EXAMPLE OF A TRICKY ACTION BROKEN DOWN IN BLOCKS. FIRST THE BIG EXTREMES ARE ESTABLISHED. ON THE SECOND PASS WE ADD THE BREAKDOWNS AND TIMING CHARTS.



DON'T BE AFRAID TO ADD COLORS TO DIFFERENT SIDES OF THE BODY. IT IS VERY EASY TO LOSE TRACK OF THE LEFT AND RIGHT SIDES OF THE FIGURE WHEN THE CHARACTER IS TURNING AROUND. SHADING OR COLORING THE FAR SIDE OF THE CHARACTER IS OFTEN ESSENTIAL FOR CLARITY.