

3 WAYS TO ANIMATE

1. The natural way, called

STRAIGHT AHEAD

We just start drawing and see what happens – like a kid drawing in the page corners of a schoolbook – stick the numbers on afterwards.

Disney director-animator Woolie Reitherman said, 'When I didn't know what I was doing in an action, I always went straight ahead. I'd just start on ones. Half the time I didn't know what I was doing. To me, it's fun. You find out something you wouldn't have found out otherwise.'

ADVANTAGES

- WE GET A NATURAL FLOW OF FLUID, SPONTANEOUS ACTION.
- IT HAS THE VITALITY OF IMPROVISATION.
- IT'S VERY 'CREATIVE' – WE GO WITH THE FLOW – TAKING ALL OF THE ACTION AS IT COMES ALONG.
- OFTEN THE UNCONSCIOUS MIND STARTS TO KICK IN: LIKE AUTHORS SAYING THEIR CHARACTER TELLS THEM WHAT'S GOING TO HAPPEN.
- IT CAN PRODUCE SURPRISES – 'MAGIC'.
- IT'S FUN.

DISADVANTAGES

- THINGS START TO WANDER.
- TIME STRETCHES and the SHOT GETS LONGER and LONGER.
- CHARACTERS GROW and SHRINK.
- WE CAN TEND TO MISS THE POINT OF THE SHOT and NOT ARRIVE AT THE RIGHT PLACE AT THE RIGHT TIME.
- THE DIRECTOR HATES US BECAUSE HE/SHE CAN'T SEE WHAT'S HAPPENING.
- IT'S LOTS OF WORK TO CLEAN UP THE MESS AFTERWARDS – and IT'S HARD TO ASSIST.
- IT'S EXPENSIVE – THE PRODUCER HATES US.
- IT CAN BE HARD ON THE NERVES – MAD ARTIST and NERVOUS BREAK-DOWN TIME AS WE CREATIVELY LEAP IN and THRASH AROUND IN THE VOID – ESPECIALLY WITH LOOMING DEADLINES.

2. The planned way, called

POSE TO POSE

First we decide what are the most important drawings – the storytelling drawings, the keys – and put them in. Then we decide what are the next most important positions that have to be in the scene. These are the extremes and we put them in – and any other important poses. Then we work out how to go from one pose to another – finding the nicest transition between two poses. These are the breakdown or passing positions. Then we can clinically make clear charts to cushion and ease in and out of the positions and add any finishing touches or indications for the assistant.

To illustrate how effective the pose to pose method is, the brilliant Disney art director–designer Ken Anderson told me that when he was making layout drawings of characters for animators working on *Snow White and the Seven Dwarfs*, he drew lots and lots of key poses of Grumpy for each shot. Ken's drawings were then given to one of the Grumpy animators. Ken found out later that the guy just put charts on the drawings, handed them to his assistants and went off to lunch, and took the credit, for what in effect, was Ken's fine animation.

ADVANTAGES

- WE GET CLARITY.
- The POINT OF THE SCENE IS NICE and CLEAR.
- IT'S STRUCTURED, CALCULATED, LOGICAL.
- WE CAN GET NICE DRAWINGS and CLEARLY READABLE POSITIONS.
- IT'S IN ORDER – The RIGHT THINGS HAPPEN AT THE RIGHT TIME and IN the RIGHT PLACE IN the OVERALL TIME ALLOTTED.
- The DIRECTOR LOVES US.
- IT'S EASY TO ASSIST.
- IT'S A QUICK WAY TO WORK and FREES US UP TO DO MORE SCENES.
- The PRODUCER LOVES US.
- WE KEEP SAFE, OUR HAIR ISN'T STANDING ON END.
- WE EARN MORE MONEY AS WE ARE SEEN TO BE RESPONSIBLE PEOPLE and CLEARLY NOT MAD ARTISTS.

PRODUCERS HAVE TO DELIVER ON TIME and ON BUDGET, SO BRILLIANCE IS NOT REWARDED AS MUCH AS RELIABILITY. I SPEAK FROM EXPERIENCE WORKING BOTH SIDES OF THE FENCE. THEY DON'T PAY US FOR 'MAGIC'. THEY PAY US FOR DELIVERY.

DISADVANTAGES

- BUT – AND IT'S A BIG BUT: WE MISS THE FLOW.
- The ACTION CAN BE A BIT CHOPPY A BIT UNNATURAL.
- AND IF WE CORRECT THAT BY ADDING A LOT OF OVERLAPPING ACTION TO IT IT CAN GO EASILY THE OTHER WAY and BE RUBBERY and SQUISHY – EQUALLY UNNATURAL.
- IT CAN BE TOO LITERAL – A BIT COLD-BLOODED. NO SURPRISES
- WHERE'S THE MAGIC?

So it's pretty obvious the best way to work is going to be:

3. The COMBINATION OF STRAIGHT AHEAD and POSE TO POSE

First we plan out what we're going to do in small thumbnail sketches. (It's also a good idea to have done this with the other two methods.)

Then we make the big drawings – the storytelling drawings, the keys. Then we put in any other important drawings that *have* to be there, like anticipations or where hands or feet contact things – the extremes. Now we have the structure, just as we had with the pose-to-pose system.

But now we use these keys and important extremes as *guides* for things and places we want to aim at. After you get your overall thing – go again. *Do one thing at a time*. We'll work straight ahead on top of these guideposts, improvising freely as we go along.

We'll do *several* straight ahead runs on different parts – taking the most important thing first. We may have to change and revise parts of the keys and extremes as we go along, rubbing bits off and re-drawing or replacing them.

So: we make a straight ahead run on the primary thing.

Then take a secondary thing and do a straight ahead run on that.

Then take the third thing and work straight ahead on that.

Then the fourth thing, etc.

Then add the hair or tail or drapery or flapping bits at the end.

ADVANTAGES

- WORKING THIS WAY COMBINES the STRUCTURED PLANNING OF WORKING FROM POSE TO POSE WITH the NATURAL FREE FLOW OF the STRAIGHT AHEAD APPROACH.
- IT'S A BALANCE BETWEEN PLANNING and SPONTANEITY.
- IT'S A BALANCE BETWEEN COLD BLOODEDNESS and PASSION.

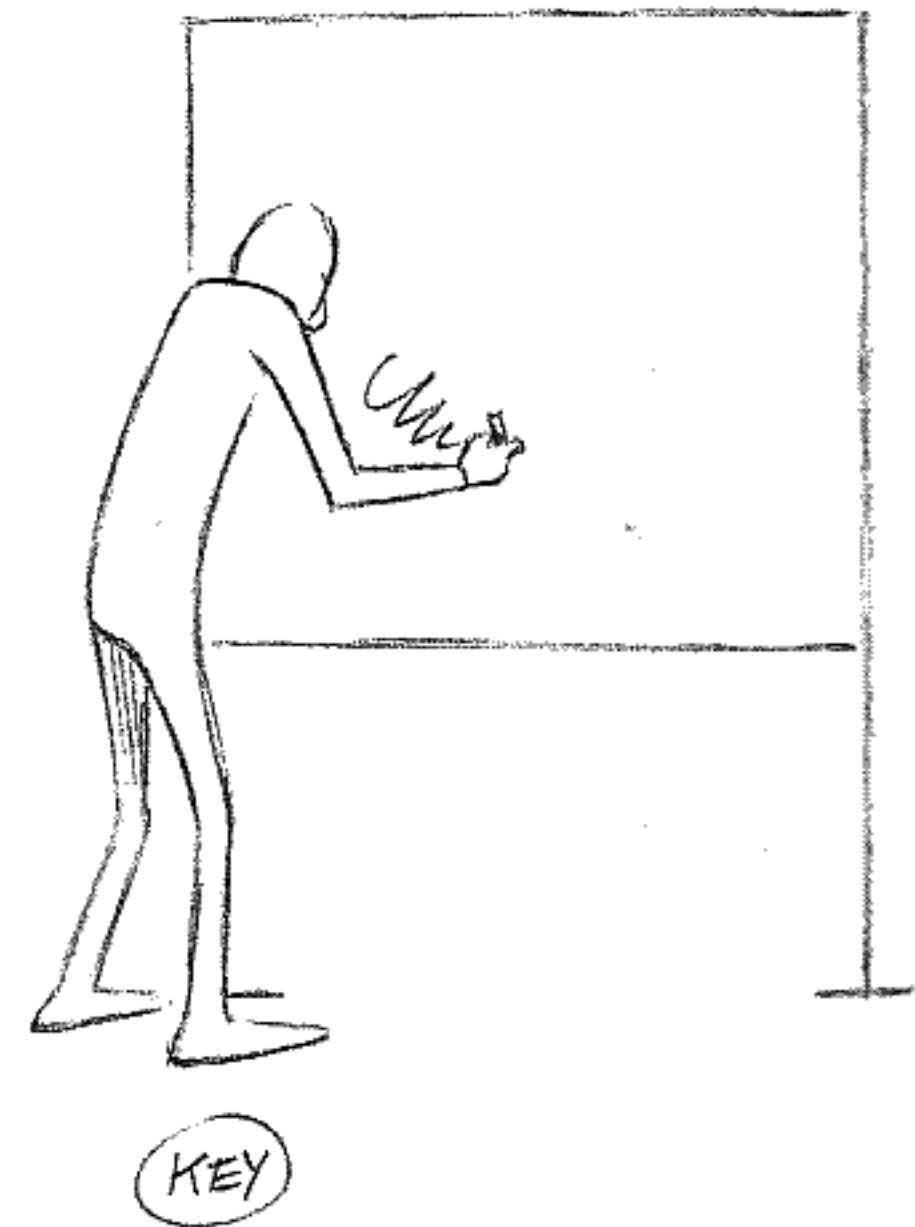
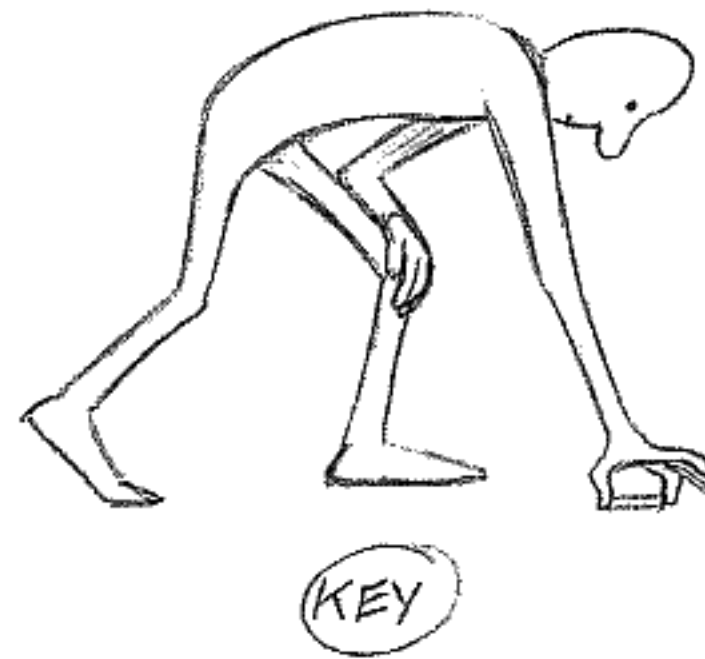
DISADVANTAGES

- NONE THAT I KNOW OF...

Let's take our man going over to the blackboard again.

What do I do first?

Answer: The keys – the storytelling drawings or positions that *have* to be there to show what's happening. Put it where you can see it . . . so it *reads*.



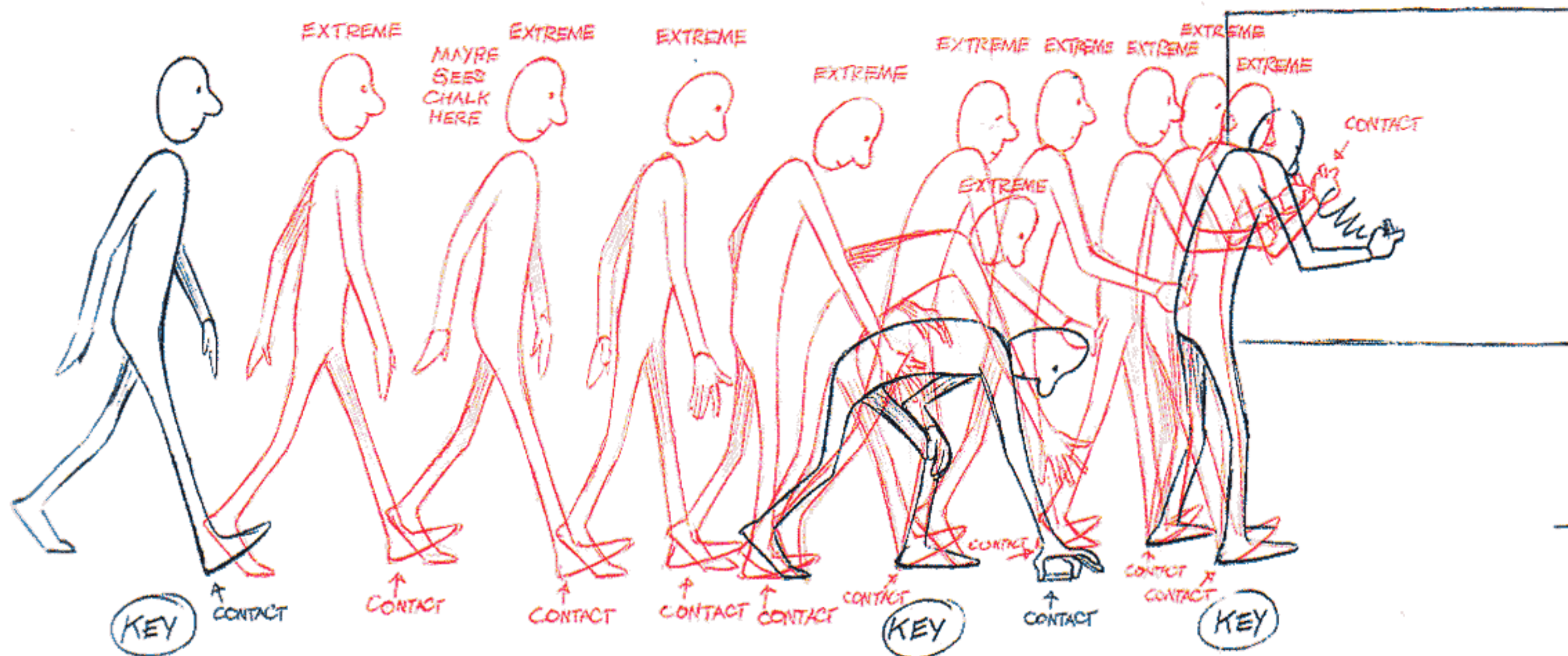
What do we do next?

Answer: Any other drawings that *have* to be in the shot. Obviously, he has to take steps to get over to the chalk – so we make the 'contact' positions on the steps where the feet are just touching the ground.

There's no weight on them yet – the heel is just contacting the ground. As with the fingers just contacting the chalk – they haven't closed on the chalk yet.

If we act all this out, we might find he takes five steps to get to the chalk and bend down. I notice that when I act it out, I automatically pull up my left pant leg as I bend down, then I put my hand on my knee before my other hand contacts the chalk. I would make an extreme where the hand just contacts the pant leg – before it pulls up the pants.

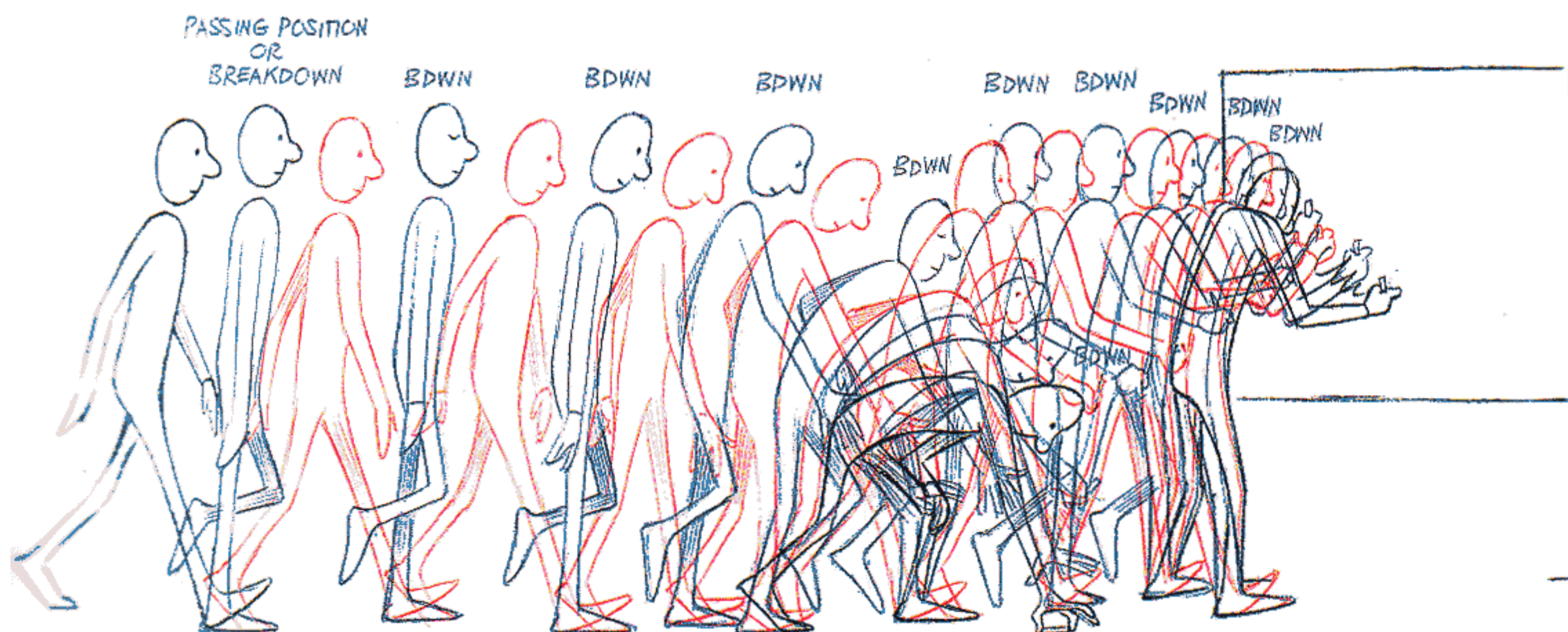
These will be our extremes. We're working rough, sketching things in lightly – although we probably have made rather good drawings of the keys. (I haven't here, because I'm trying to keep it simple, for clarity).



We could act it out, timing the steps and putting numbers on the extremes or we could leave the numbering till later. I would probably put numbers on it now and test it on the video to see how the timing feels as his steps get shorter – and make any adjustments.

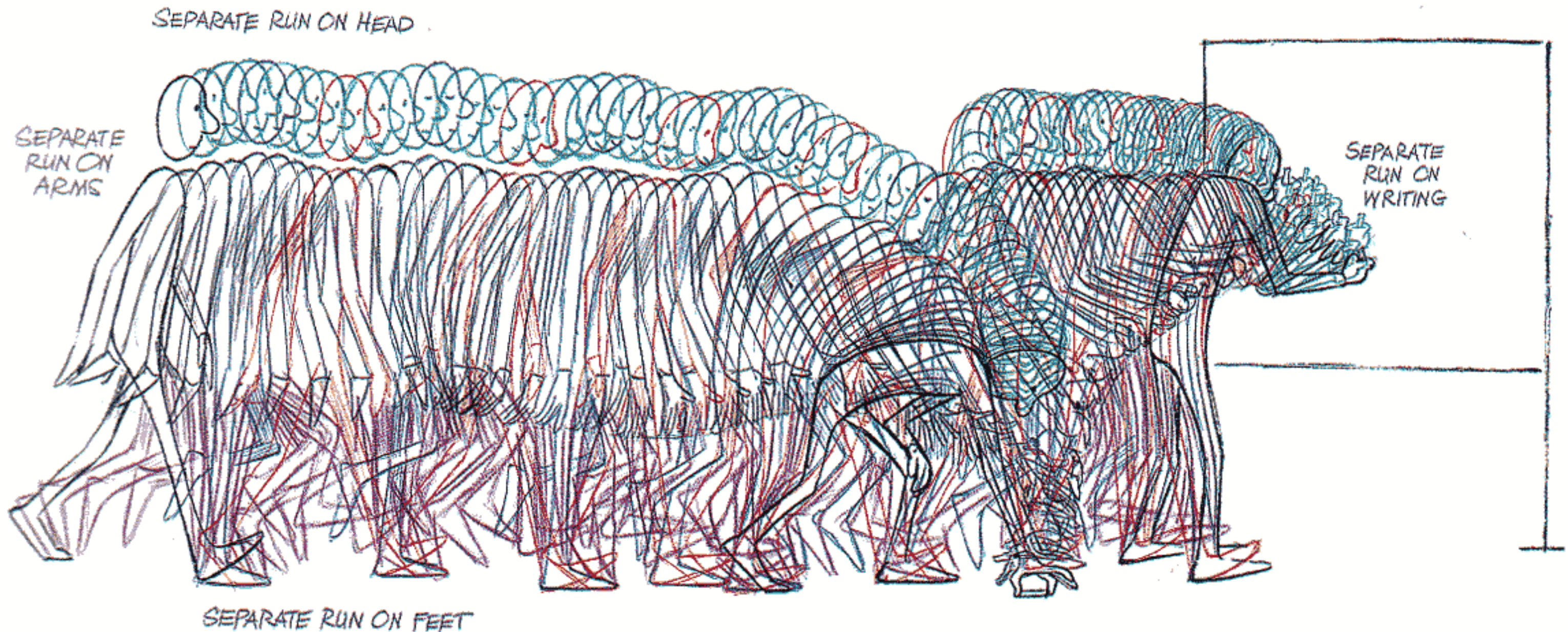
What next?

We'll break it down, lightly sketching in our passing positions or 'breakdowns'. We won't get fancy about it now – the fancy stuff comes later in the book. For now, we'll just make the head and body raise up slightly on the passing positions of the steps – like it does on a normal walk.



We'd probably have numbers on the drawings by now, and when we test it, we've got three or four positions for every second – so it's easy to see what our timing is. And to make any adjustments. And if the director wants to see how we're doing – it looks almost animated.

Now we'll make straight ahead runs on the different parts – using our extremes and breakdown positions as a guide – and altering them, or parts of them, if we need to as we go along. Take one thing at a time and animate it straight ahead.



Maybe he's mumbling to himself, or maybe he's talking – maybe his head just wobbles around with self love. Whatever it is, we'll treat it as a separate straight-ahead run, working on top of what we already have.

We'll make another straight-ahead run on the arms and hands. Maybe they'll swing freely in a figure eight or a pendulum movement; or maybe they hardly move before he reaches for the chalk. Maybe he pulls up his pants as he moves along – or scratches or snaps his fingers nervously, or cracks his knuckles. When we arrive at our key, we might rub out the arm and alter it to suit our arm action. Or delay his head. Or raise it early to look at the board.

We can do lots of interesting things with the legs and feet, but for now we just want them to function smoothly. (I'm avoiding the problem of weight at this stage because the up and down on the head and body that we have at the moment will be adequate for now, and the figure won't just float along.)

When he writes on the board, we'll treat that as a separate run. If he has long hair or a pony tail, we'll do that as a separate straight-ahead run. His clothes could be a separate run, baggy pant legs following along. If he'd grown a tail, that would be the last thing we'd put on.

I've shown these things in different colours to be as clear as possible. In my own work I sometimes use different coloured pencils for the separate runs – then pull it all together in black at the end. I was delighted to find that the great Bill Tytla often used colours for the separate bits, then pulled them all together afterwards.

To recap:

Having made the keys, put in the extremes, then put in the breakdowns or passing positions. Now that we've got our main thing – we go again, taking one thing at a time.

First, the most important thing.

Then, the secondary thing.

Then, the third thing.

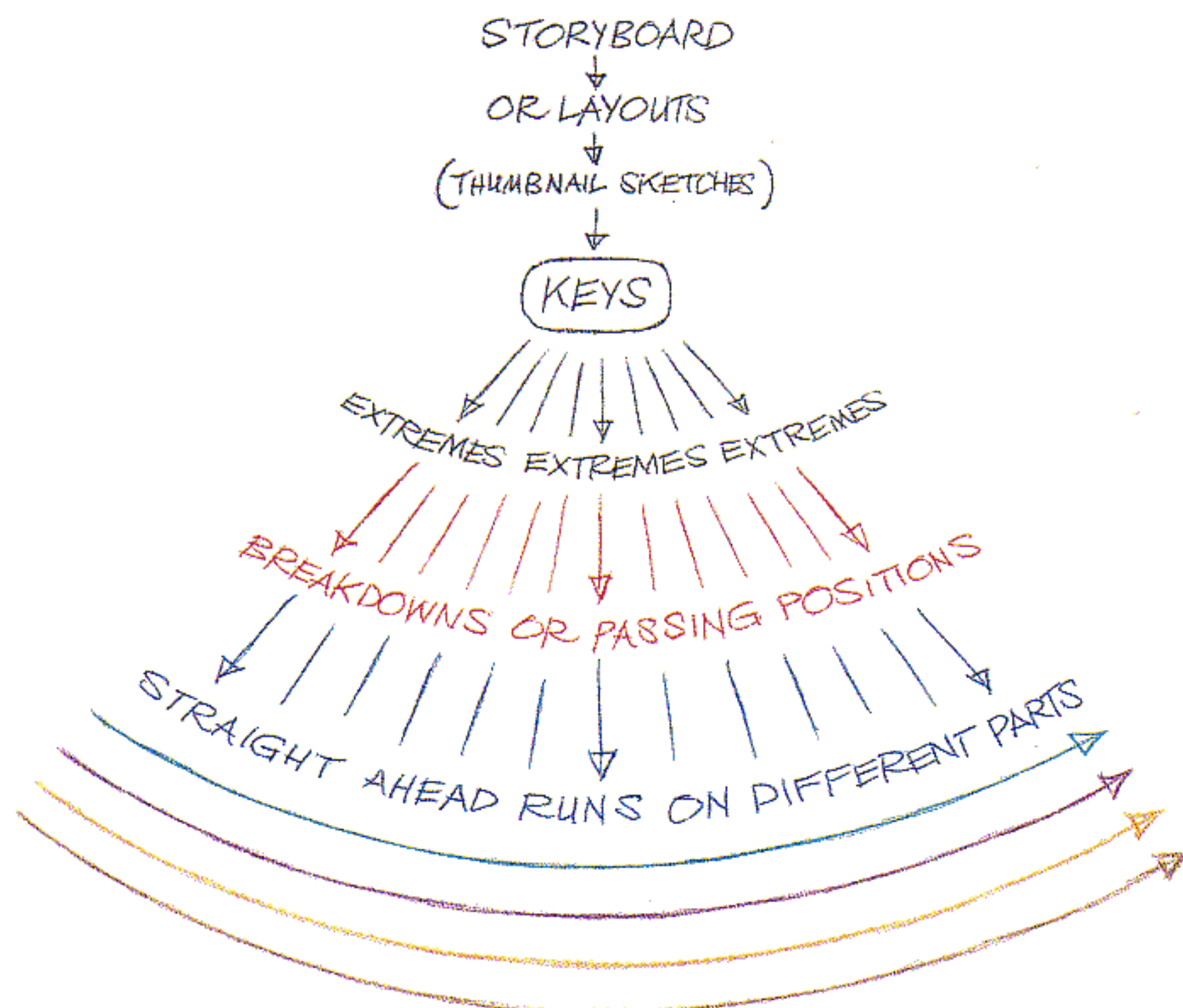
Then, the fourth thing etc.

Then, add any flapping bits, drapery, hair, fat, breasts, tails etc.

The general principle is:

After you've got your first overall thing – go again. Do one thing at a time (testing as you go along). Then pull it all together and polish it up. Make clear charts for the assistant to follow up or do it all yourself.

It's like this:



Of course, you can work any way you want. There are no rules – only methods. You might feel like ignoring all of this and just work straight ahead or work from pose-to-pose, or start one way and switch to the other – why not?

What's to stop us re-inventing the wheel? Lots of people are busy doing it. But on the other hand, why bother?

This method of going at it was developed through concentrated trial and error by geniuses and it's a wonderful basis on which to operate. Having used just about every approach going – including no system – I've found this is the best working method by far. Get it in your bloodstream and it frees you to express yourself. Use this technique to get past the technique!

Milt Kahl worked this way. Near the end of his life I told him, 'Now that I've been working the same way, I really do think that – apart from your talent, brain and skill – fifty per cent of the excellence in your work comes from your working method: the way you think about it, and the way you go about it.'

'Well . . .' he said thoughtfully, 'you're right. Hey, you've gotten smart!' Milt often told me that by the time he'd plotted everything out this way, he'd pretty much animated the scene – even including the lip sync. Then he'd finish putting numbers on the drawings, add bits and make little clinical charts for the assistant – easing things in and out. He complained he never really got to animate because when he'd finished plotting out all the important stuff – it *was* animated. He'd already done it.

I rest my case.

TESTING, TESTING, TESTING...

I always use the video to test my stuff at each stage – even the first scribbles – time them and test them. In the 1970s and 80s, Art Babbitt used to get mad at me for it – 'Goddamit, you're using that video as a crutch!' 'Yes,' I'd say, 'but is it not true that Disney first instituted pencil tests and that's what changed and developed animation? And don't you always say that pencil tests are our rehearsals?'

Assenting grunt.

'And what's the difference between rushing a test in to the cameraman at the end of the day when he's trying to get home, and if he does stay to shoot it, hang around the next day till the lab delivers the print and mid-morning interrupt the editor, who's busy cutting in the main shots, and then finally see your test – when we can use today's video and get a test in ten minutes?'

Art would turn away, 'I am not a Luddite.' (Machine wreckers protesting the Industrial Revolution.)

Whenever Ken Harris had to animate a walk, he would sketch out a quick walk cycle test and we'd shoot it, pop the negative in a bucket of developer, pull out the wet negative (black film with white lines on it), make a loop and run it on the moviola.

'I've done hundreds of walks,' Ken would say, 'all kinds of walks, but I still want to get a test of my basic thing before I start to build on it.'

Bill Tytla said, 'If you do a piece of animation and run over it enough times, you must see what's wrong with it.'

I actually think the video and computer have saved animation!

Certainly the success of *Who Framed Roger Rabbit* contributed substantially to the renaissance of animation, and having the video to test everything as we went along was crucial to us. We had a lot of talented but inexperienced young people, and with a handful of lead animators we were able to say, 'Take that drawing out, change that one, and put more drawings in here' etc. This enabled us to keep improving everything as we raced along, so we were able to collectively hit the target.

Milt always said he would never bother to look at his tests. 'Hell, I know what it looks like – I *did* it!' He would wait to see several of his shots cut together in a sequence but only to see 'how it's getting over'.

But that was his way. I have never reached that stage and probably never will. I test everything as I go along and it really helps. We're building these performances, so why not test our foundations and structure and decorations as we proceed? And since it reveals our mistakes – mistakes are very important since we *do* learn from our mistakes – we make our corrections and improvements as we build.

Of course, at this stage I wouldn't have a problem routining my way through a job without testing – but why?

The video or computer is there, so let's use it.

An interesting thing I've noticed is that when animators get older their perception of time slows up. They move slower and animate things slower. The young guys zip stuff around. So, the video is a useful corrective to us old bastards. And young ones when it's *too* fast.