

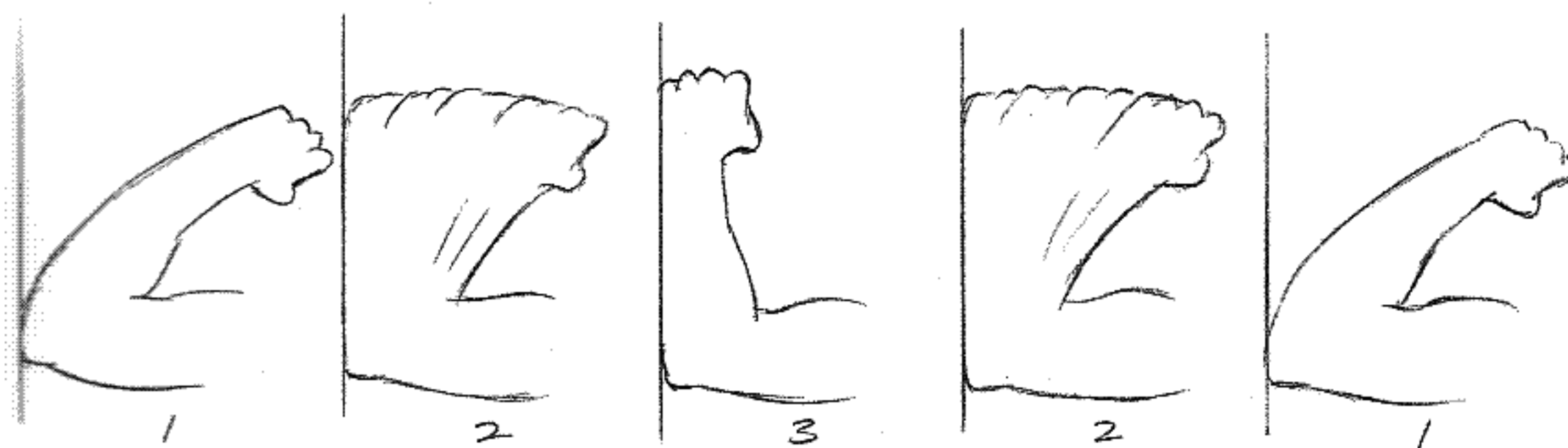
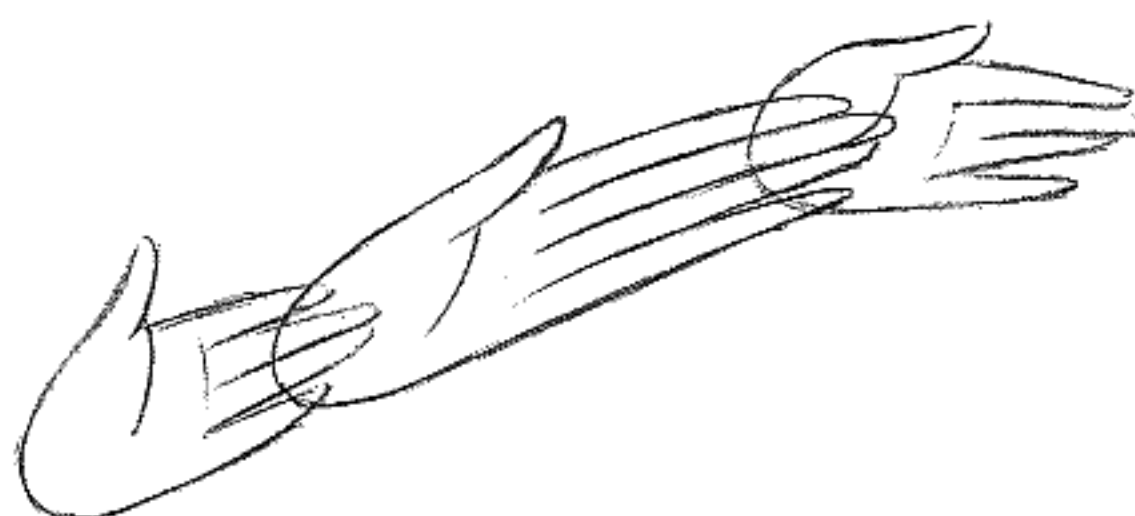
The ELONGATED INBETWEEN

In the 1930s, when animators started studying live action film frame by frame, they were startled by the amount of transparent blurs in the live images. In order to make their movements more convincing, they started using stretched inbetweens. Ken used to call them 'long-headed inbetweens'.

For a zip turn – on ones – although it also works for two frames:



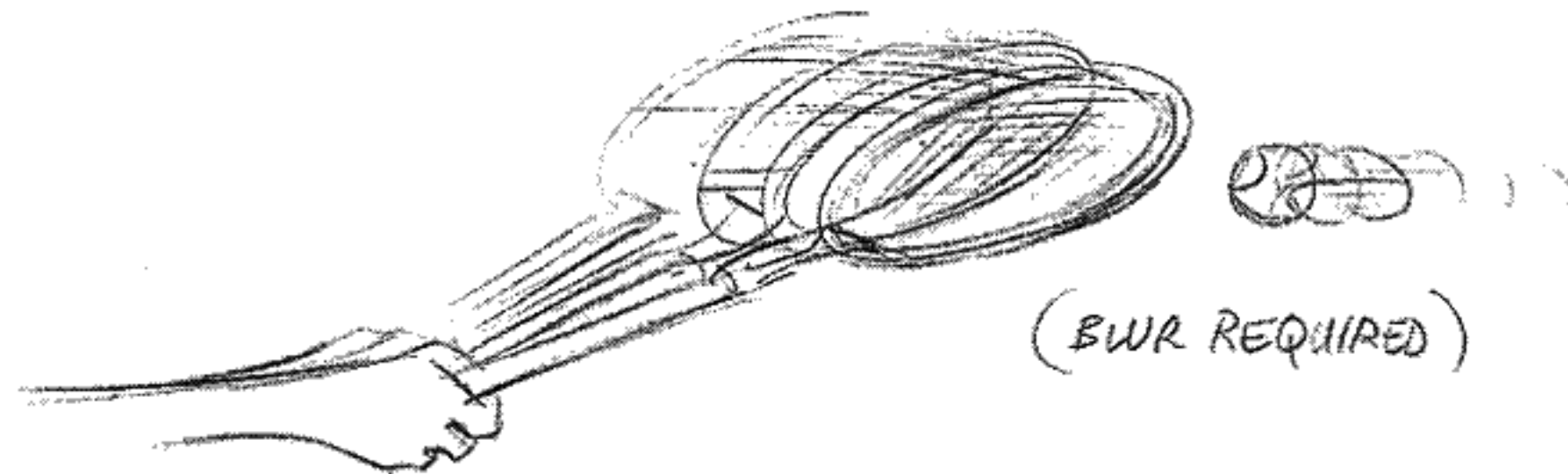
BY DISTENDING
THE HAND ON A FAST
MOVEMENT
WE CAN CREATE
AN OVERLAP.



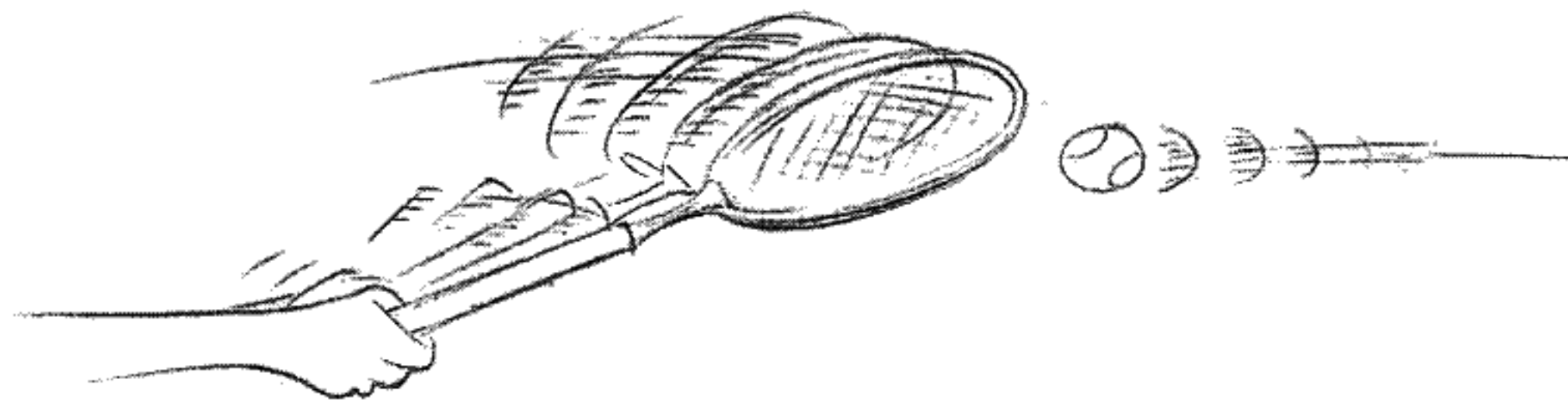
Let's take these drawings of pounding a door. Shoot the inbetween (2) on ones. This is one of the very few cases where you can shoot the sequence in reverse. It will work on ones – or with just the inbetween on ones and the extremes – (1) and (3), on twos.

EITHER	OR:
$\frac{1}{2}$	$\frac{1}{2}$
$\frac{3}{2}$	$\frac{2}{3}$
$\frac{2}{1}$	$\frac{1}{2}$
$\frac{2}{3}$	$\frac{2}{1}$
$\frac{2}{2}$	$\frac{2}{3}$
$\frac{1}{2}$	$\frac{2}{3}$
$\frac{2}{3}$	$\frac{2}{1}$
$\frac{2}{2}$	$\frac{1}{2}$
$\frac{1}{3}$	$\frac{2}{2}$

In the late 1930s when tracing and painting the drawings on to cels was all done by hand, many painters became very adept at 'dry brushing' the desired transparent live action blur effect. Animators indicated the blur on their pencil drawings and the 'dry brushers' would cleverly blend the colours together to simulate the transparency in the blur.



After the 1941 animators' strike and World War II, budgets shrank and so did the use of skilled backup painters. But a lot of animators just kept on indicating blurs and it became a cartoon convention to just trace this in heavy black lines – ignoring the fact that the dry brush artists were long gone.



Now it's become a cartoon cliché. A cartoon of a cartoon:

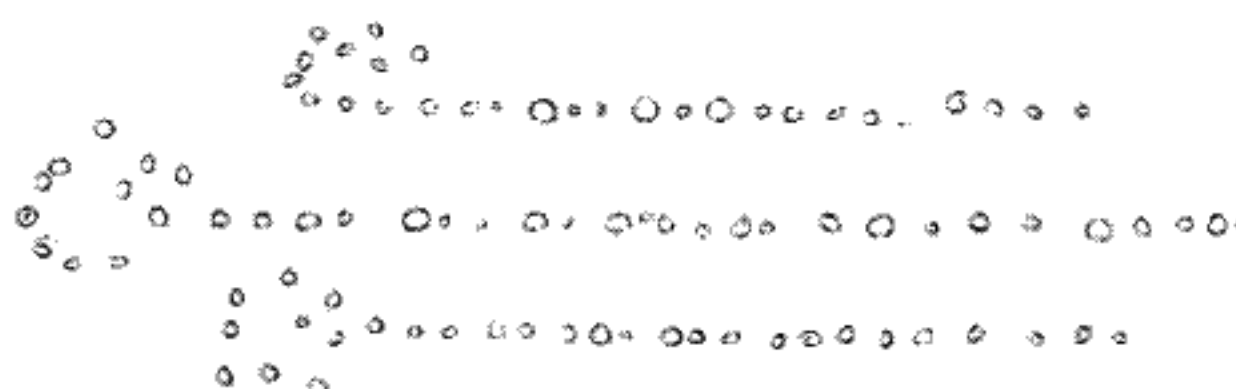


With characters just vanishing from the screen, Ken told me:

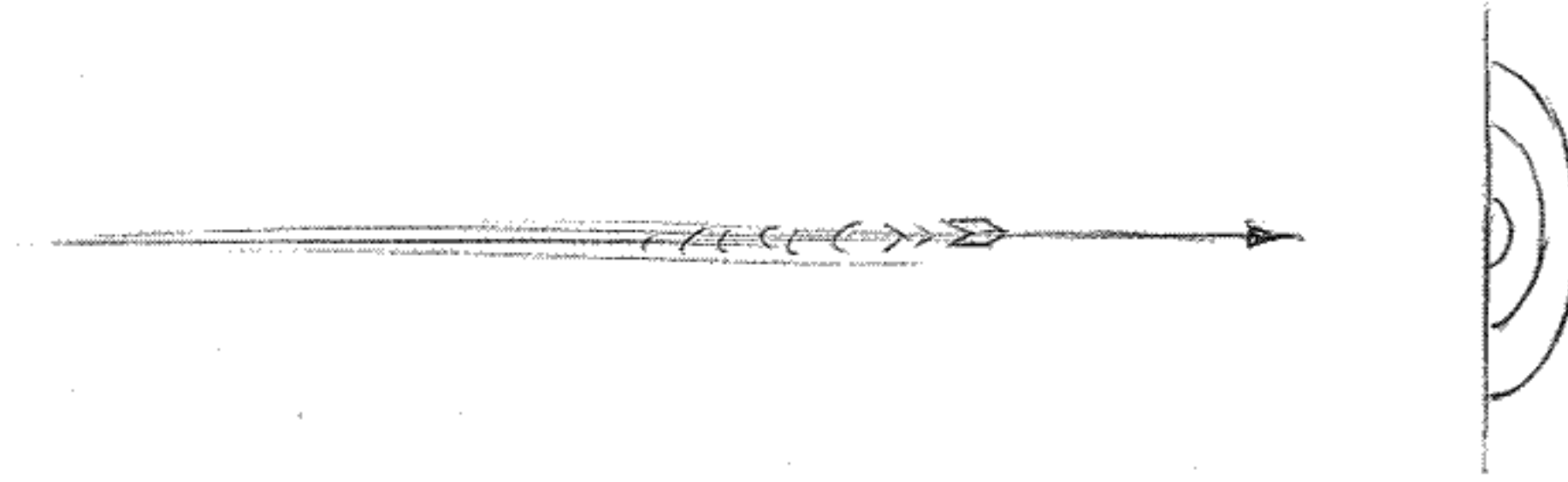
'We'd have this witch up in the air laughing and then she's gone. Instead of making a blur we just used to leave hairpins where she was.'



'We learned that from the Disney guys in a fish picture. They'd have these little fish swimming around and something would scare them and they were gone – that's all – with just a few bubbles for the path they took.'

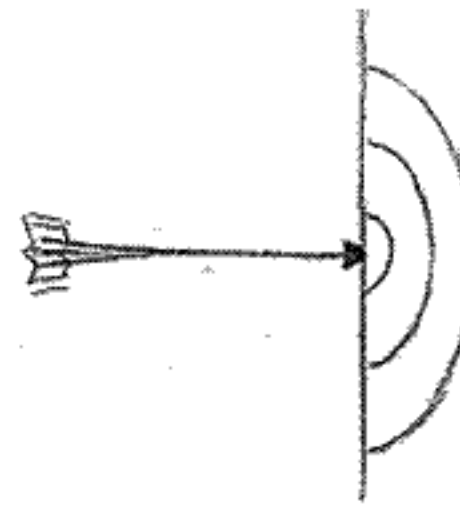


In the early days, speed lines were a hangover from old newspaper strips:

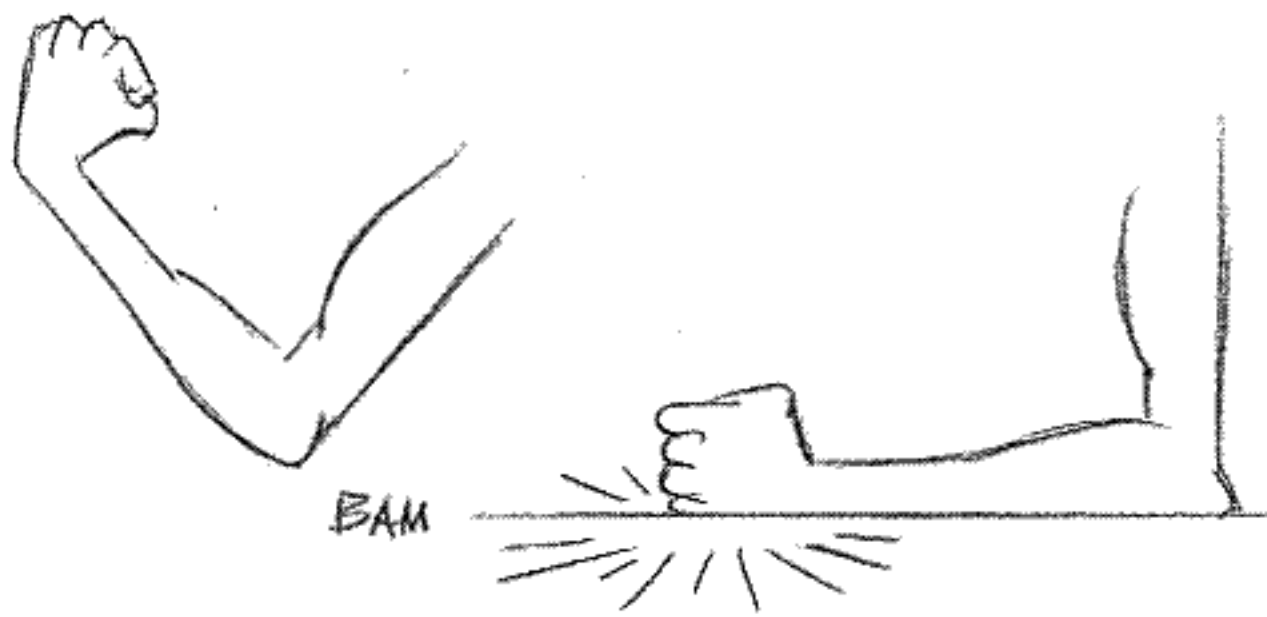


Then they were used in animation to help carry your eye. But they're still around now when we don't really need them. You don't even need to show the arrow entering. We have nothing and then it's just there – maybe with the tail vibrating.

N O T H I N G



JUST SHOW
THE RESULT



WE DON'T NEED 'SPARKS'
EITHER. IF THE ANIMATION
HAS POWER WE WON'T NEED
LITTLE BLACK LINES AROUND
IT TO GIVE IT STRENGTH.

However, I find the elongated or 'long-headed' inbetween is very useful – not just for a zippy cartoon effect, but also for use in realistic fast actions:



Again, we're returning to the original purpose – emulating the transparency of broad, live action blur movements. It's especially suitable with 'soft edge' loose drawings – where the outlines aren't sharp and enclosed like colouring book drawings.

The MAJOR BEGINNER'S MISTAKE

Doing too much action in too short a space of time, i.e. too great arm and leg swings in a run. The remedy: go twice as slow. Add in drawings to slow it down – take out drawings to speed it up.

Ken Harris told me that when Ben Washam was starting out at Warner's, he became famous in the industry for 'Benny's Twelve Frame Yawn'. Ben drew well and made twelve elaborate drawings of someone going through the broad positions of a yawn – an action something like this:



Then he shot it on ones. Zip! It flashed through in half a second!

So then he shot it on twos. ZZZip! It went through in one second!

So then he inbetweened it (twenty-four drawings now) and shot it on twos. ZZZZZZ! It went through in two seconds – almost right.

Then Ken showed him how to add some cushioning drawings at the beginning and end – and bingo, Ben's on his way to being a fine animator.

The "RUFF" APPROACH

Some animators want to save themselves a lot of the work so they draw very rough. ('Ruff' – they don't even want to spend the time spelling 'rough'. Too many letters in it to waste our valuable time . . .) And they leave lots and lots of work for the assistants.

I've never understood why some people in animation are so desperate to save work. If you want to save work, what on earth are you doing in animation? It's nothing *but* work!

In the early days at The Disney Studio, when animation was being transformed from its crude beginnings into a sophisticated art form, they used to say, take at least a day to *think* about what you're going to do – *then* do it.

One old animator, writing about the subject forty years later, advises that we should spend *days* thinking about it. He's read up on Freud and Jung and the unconscious mind and he writes seductively about how you should ruminate until the last minute and then explode into a frenzy of flowing creativity.

He told me that in a week's work he'd spend Monday, Tuesday, Wednesday and Thursday thinking about it and planning it in his mind. Then on Friday he'd *do* it. The only problem is that it then takes three weeks for somebody else to make sense of it.

I knew this guy pretty well – and he made it sound so creatively attractive that, though I felt it was artistic b.s., I thought I better try it out. I managed to ruminate, stewing and marinating my juices for about a day and a half and then couldn't stand it any more. I exploded into creative frenzy for a day, drawing into the night like a maniac. The result was pretty interesting, but it really did take three weeks to straighten it all out afterwards. And I don't think it was any better than if I had worked normally – maybe just a bit different.

I think Milt Kahl has the correct approach: 'I do it a lot. I think about it a lot, and I do it a lot.'

Ken Harris worked intensely from 7.30 am till noon, relaxed at lunch, hung around doing bits for a while, went home to watch TV (or play tennis when he was younger) and thought about what he was going to do the next day – then came in early, avoided social contact and did it.

He worked carefully and thought very hard about his stuff. He said he was surprised when he saw some of Ward Kimball's working drawings because they were exactly the same as his – very neat – very carefully done – usually something on every drawing in the shot.

When I first saw Milt's work on his desk I was startled by how much work he did. His drawings were finished, really. There was no 'clean up' – just 'touch up', and completing details and simple inbetweens or parts of them. Ditto Frank Thomas, ditto Ollie Johnston, ditto Art Babbitt. The two exceptions to this were Cliff Nordberg, a marvellous 'action' animator who worked with me for a while, and Grim Natwick. Cliff did work very roughly – so he was awfully dependent on having a good assistant and it always caused him a lot of concern. And Grim was a law unto himself.

There's an animation myth about the assistant always being able to draw better than the animator. (I never met one who did.) The myth is that the animator creates the 'acting' and the fine draftspeople improves the look of everything and nails it all down. Well, there aren't that many fine draftspeople around and if they're good enough to nail all the details down and draw well, they really should be animating – and probably are. (An exception to this is the assistant 'stylist' on commercials where the 'look' of the thing is its *raison d'être*. There are a few excellent ones around.)

Rough drawings have lots of seductive vitality, blurs, pressure of line, etc. But when they're polished and tidied up you usually find there wasn't that much there to begin with.

As we go along through this book it'll be apparent how much work we have to do to get a really interesting result. No matter how talented – the best guys are always the ones that work the hardest. But hang the work, it's the unique *result* that we're after. Every time we do a scene, we're doing something unique – something nobody else has ever done. It's a proper craft.

HOW MUCH DO WE LEAVE TO THE ASSISTANT?

Milt Kahl's answer: 'I do enough to have iron clad control over the scene.'

Ken Harris's answer: 'I draw anything which is not a simple inbetween.'

Milt again: 'I don't leave assistants very much. How much can I get away with leaving and still control the scene? If it's fast action, I do every drawing.'

The purpose of the assistant is to free the animator to get through more work by handling the less important bits – but as we have seen, he/she can't be just a brainless drawing machine. The computer produces *perfect* inbetweens, but obviously has to be programmed to put in the eccentric bits that give it the life.

Here's my tip on saving work – my rule of thumb:

TAKE THE LONG SHORT CUT.

The long way turns out to be shorter.

Because: something usually goes wrong with some clever rabbit's idea for a short cut and it turns out to take even longer trying to fix everything when it goes wrong.

I've found it's quicker to just do the work, and certainly more enjoyable because we're on solid ground and not depending on some smart guy's probably half-baked scheme.

And again, if you don't want to do lots of work, what are you doing in animation?

One of the things I *love* about animation is that you have to be specific. If a drawing is out of place it's just *wrong* – clearly wrong – as opposed to 'Art' or 'Fine Art' where everything these days is amorphous and subjective.

For us, it's obvious whether our animation works or not, whether things have weight, or just jerk about or float around wobbling amorously.

We can't hide in all that 'unconscious mind' stuff. Of course, we can dress up and *act* like temperamental prima donnas – but we can't kid anybody with the work. It's obvious whether it's good or bad.

And there's nothing more satisfying than getting it right!