TIME TO DRAW

This section is really for classical animators. However, I haven’t been surprised to find that most of the leading computer animators draw rather well, so it may be interesting to them too. It certainly helps enormously to be able to put down your ideas – even in stick figures. For the classical animator it is crucial.

Drawing should become second nature, so that the animator can concentrate on the actual actions and the timing of them and give the performance life.

When you’re doing cartoons all the time, it’s very easy to slide into formula drawing. During the making of Who Framed Roger Rabbit I found this pinned up on our notice board:

* EPITAPH OF AN UNFORTUNATE ARTIST *

He found a formula
For drawing
Comic rabbits:
This formula for
Drawing comic
Rabbits paid,
So in the end he
Could not
Change the
Tragic habits
This formula for
Drawing Comic
Rabbits made.

— ROBERT GRAVES —

Life drawing is the antidote to this.

When you’re doing life drawing, you’re all alone. One of the main reasons animators – once they become animators – don’t like to spend their evenings and spare time life drawing is because it’s not a collaborative operation.

Animation is usually a group effort, and one has the stimulus of constant interaction, both competitive and co-operative, with the cut and thrust, highs and lows, political factions of complaint and inspiration, all the tensions and anxieties, rewards and excitement of group production.
With life drawing there's no one to admire your efforts – rather the reverse. It's always shocking to find you're not as advanced or skilled as you thought you were, and since it's about the hardest thing to do with no rewards other than the thing itself – it's no wonder few do it or stick at it.

Most animators are exhausted at the end of a day's work and have families to go to. Also, one has to do a lot of life drawing to get anywhere – not just a bit at a time here and there.

But the fact remains that there is no replacement for the hard work of solid life drawing.

There is one payoff and it is substantial – the gradual and fundamental improvement of all one's work.

Winsor McCay once said: 'If I were starting over again, the first thing I'd do would be to make a thorough study of draftsmanship. I would learn perspective, then the human figure, both nude and clothed, and surround it with proper setting.'

And Milt Kahl said: 'I don't think it's possible to be a top notch animator without being an excellent draftsman. You have to try for the whole thing, you know, got to know the figure. Know the figure well enough so that you can concentrate on the particular person – on the difference – why this person is different from somebody else. The ability to draw and be able to turn things and the ability, the knowledge that enables you to caricature and to exaggerate in the right direction and emphasise the difference between things is what you're doing all the time. Any time you're doing a strong drawing of anything well, your drawing is strong because you're depicting why this is different from something else. You need that figure-drawing background in order to sharpen. Every animator should have this background and unfortunately they don't! You just can't know too much. If you're going to lampoon something, or do a satire – you have to understand the straight way. It gives you a jumping-off point. It gives you a contrast. You just do it and do it . . . and do it!'
Art Babbitt is blunter: 'If you can’t draw – forget it. You’re an actor without arms and legs.'

But we can learn to draw. There’s the myth that you are either a born draftsman or not. Wrong! Obviously, natural talent is a great help and the desire is essential, but drawing can be taught and drawing can be learnt. Its best to have done a ton of it at art school to get the foundation in early. But it can be done at any time. Just do it.

Here are three pieces of drawing advice that were given to me – and which stuck.

When I was fifteen years old and really keen on being an animator, I took a five day-and-night bus trip from Toronto to Los Angeles, and walked up and down outside the Disney Studio fence for days hoping to get inside. Finally an advertising friend of my mother’s saw my drawings and rang up the Disney PR department, and they took me into the Studio for two days; they were very kind to me and even did a press story on me.

It was there that I received my first piece of great advice. Richard Kelsey (Disney story artist and designer/illustrator) said, ‘First of all, kid, learn to draw. You can always do the animation stuff later.’

I desperately wanted to become an animator and I produced my sketches of Disney characters, which were kind of at the Roger Rabbit level since I was a precocious little bastard. Dick Kelsey looked at them and said, ‘Yes, but I mean really learn to draw.’
Weeks later when I was getting on the bus to go home to Toronto, I rang Dick up and asked again, ‘What do you think I should do?’ – ‘Learn to draw!’ he said.

One great regret I have in my life is that forty years later, when I was animation director on Who Framed Roger Rabbit, I saw Dick in the Disney canteen out of the corner of my eye, but I was so caught up in the production politics I didn’t break away to go over and thank him. I never had another chance.

After my trip I went straight to art school and received the second piece of advice, from a great teacher and superb draftsman, Eric Freifeld, then teaching at the Ontario College of Art. He looked at my life drawings and said, ‘Well, here’s a clever little fellow who’s never seen anything.’ I said, ‘What should I do?’ He said, ‘Go to the library and look at Albrecht Dürer for two years.’ I did. And not surprisingly my interest in animation vanished for years.

I paid my way through art school by knocking off Disneyesque dog food ads like the one above – at the same time doing ‘realismo social’ like this lithograph of a revival meeting ‘Where the healing waters flow’.

After that I lived in Spain for a couple of years doing paintings like these until a totally unexpected affliction by the animation bug got me. Forty years later a top executive on Who Framed Roger Rabbit kept referring to me as ‘artsy craftsy’ or ‘artsy fartsy’. How did he ever know? He must have smelt it as there was no sign of it in my animation.
The third piece of drawing advice came many years later – I was fifty – when I was pretty accomplished, and it came from a much younger man. My talent is primarily ‘linear’, which makes cartooning easy. However, since animators have to enclose their shapes, there is a tendency to end up just drawing outlines – like colouring-book figures. In other words, animators don’t usually draw from the inside-out, like a sculptor does. Sculpture had been my weakest subject – although I’d done a lot of life drawing and had a grounding in basic anatomy.

John Watkiss – then a twenty-three-year-old, self-taught, brilliant draftsman and anatomist – held his own life drawing classes in London. (Recently he was one of the principle designers of Disney’s Tarzan.) I used to hire John periodically to do presentation artwork and we were friendly. I went to John’s evening life classes for a while and one day John, who is ruthlessly honest, pointed to my drawing and said, ‘Hey! You missed a stage!’ I felt like a butterfly pinned to the wall. He was right. I knew exactly what he meant. I was weak from a sculptural point of view. I was too linear.

Years later, when I had dropped out of the ‘industry’ part of animation, I re-studied my anatomy and worked on drawing from the inside-out. I advanced backwards and filled in the missing stage.
I showed my ex-illustrator mother several of these life drawings when she was bed-bound just before she died. ‘I’ve been working at reconstituting myself, Mom, doing all these drawings.’ She looked at them carefully for some time, then said, ‘Very nice, very nice . . . Nothing new.’ Advice from the inside – from one’s family – somehow doesn’t have the same impact as from the outside. However, my mother had once said, ‘When you go to art school, you’ll find everybody sitting around pretending how to do their signature,’ and sure enough, there they were, some of them doing just that.

She also gave me this great advice: ‘Don’t try to develop a style. Ignore style. Just concentrate on the drawing and style will just occur.’

Of course there’s an opposing view to all of this ‘you’ve got to learn to draw’ stuff.

The great Tex Avery, master of animation’s ability to do the impossible and make the unreal spring to life – and the first director of Bugs Bunny and Elmer Fudd – said:

‘I was never too great an artist. I realised there at Lantz’s that most of those fellows could draw rings around me . . . I thought, Brother! Why fight it? I’ll never make it! Go the other route. And I’m glad I did. My goodness, I’ve enjoyed that a lot more than I would have enjoyed just animating scenes all my life.’
Tex stopped animating and became a great, original and innovative director. The biographer John Canemaker said: 'While Disney in the 1930s was trying to convince the audience of the “reality” of his characters in his film world, by creating his “illusion of life”, Tex went in the opposite direction, celebrating the cartoon as cartoon, exploring the medium’s potential for surrealism.' He never let audiences forget they were watching an animated film.

Tex had a twenty-year run with his wildly funny approach to the medium, but he found it impossible to sustain. 'I’m burned out,' he said. His colleague, animator Mike Lah said, 'He didn’t have any more space. He used it up.'

I love Tex Avery’s cartoons – his drawings and character designs. His Droopy is my favourite cartoon character. One of the nice things about doing Who Framed Roger Rabbit was to emulate Tex Avery’s humour – ‘But not so brutal!’ were my instructions. Though, as Milt said, ‘You have to try to have the whole thing.’

I am convinced that if an animator’s drawing foundation is strong, he will have the versatility to go in all the different directions possible at his fingertips. He’ll be able to draw anything – from the most difficult, realistic characters, to the most wild and wacky. And it’s not likely he’ll exhaust his resources and suffer burn-out.

Because of his strong drawing ability, Milt Kahl was usually saddled with animating ‘the Prince’ or Disney’s ‘straighter’ characters – which of course are the hardest ones to do. Whenever anyone criticised his work, he’d say, ‘OK, you can do the Prince.’ And they’d soon vanish.

Word spread among the more ‘cartoony’ artists that, ‘Milt draws beautifully but he can only do the straight stuff and he can’t handle zany stuff at all.’ Then, between features, Milt animated most of Tiger Trouble, a ‘Goofy’ short. Everybody shut up, and stayed shut up. His work is a classic of broad and crazy animation.

‘If you can draw funny that’s enough’ is an animation myth that’s been around a long time, and still seems to persist. This is because a few of the early animators lacked sophisticated drawing skills – but nevertheless were very inventive and excellent at getting the essence of the drama and performance.

The myth was that all they needed was to have a good draftsman as an assistant to do the final drawings and everything would be fine. But in the mid-thirties, when the new wave of young animators with better drawing skills came on the scene and learned from the old guys, the ground was soon littered with out-of-work animators who could only handle the cruder cartoons. The new breed of better draftsmen took their jobs away from them. If the present boom in this medium ever contracts it’s certain that the more skilled artists will be the survivors.

Bill Tytla – famous for his animation of Stromboli in Pinocchio, the Devil in ‘Night on Bald Mountain’ from Fantasia, and Dumbo with his mother – once said: ‘At times you will have to animate stuff where you can’t just be cute and coy. Those are the times when you’ll have to know something about drawing. Whether it’s called form or force or vitality, you must get it into your work, for that will be what you feel, and drawing is your means of expressing it.’
Obviously all this doesn’t apply so much to computer animators since the ‘maquette’ of the character is already planted inside the machine, ready to be manipulated. But since most of the leading computer animators draw rather well, many work out their positions in small sketches, and, of course, the planning, layout and story artists and designers draw exactly the same as their classical equivalents.

I had an unnerving experience in Canada when a friend asked me to give a one-hour address to a large high school gathering of computer animation students. They had a very impressive set-up of expensive computers but, from what I could see of their work, none of them seemed to have any idea of drawing at all. During my talk I stressed the importance of drawing and the great shortage of good draftsmen.

A laid-back greybeard professor interrupted to inform me, ‘What do you mean? All of us here draw very well.’

Words failed me.

At the end of the talk, I showed them how to do a basic walk, and as a result got mobbed at the exit, the kids pleading desperately for me to teach them more. I escaped, but I’m afraid that’s what the situation is out there – a lack of any formal training and no one to pass on the ‘knowledge’.

You don’t know what you don’t know.

One of the problems rampant today is that, in the late 1960s, realistic drawing generally became considered unfashionable by the art world, and no one bothered to learn how to do it any more.

The Slade school in London used to be world-famous for turning out fine British draftsmen. A distinguished British painter who taught at the Slade asked me, ‘How did you learn how to do animation?’ I answered that I was lucky enough to have done a lot of life drawing at art school, so without realizing it I got the feeling for weight which is so vital to animation.

Then I said, ‘What am I telling you for? You’re teaching at the Slade and it’s famous for its life drawing and excellent draftsmen.’

‘If the students want to do that,’ he said, ‘then they’ve got to club together and hire themselves a model and do it in their own home.’ At first I thought he was joking – but no! Life drawing as a subject went out years ago. It wasn’t even on the curriculum!

I had a boyhood friend who became a bigwig in art education circles. He ran international conferences of the arts. About sixteen years ago he invited me to Amsterdam to a conference of the deans of the leading American art colleges. He knew me well enough to know I was bound to say controversial things, so I was invited as his wild card.

In my talk I found myself lamenting the lack of trained, talented artists and that I was hampered in my own studio’s work because I couldn’t find trained disciplined artists to hire. The applicants’ portfolios were full of textures, abstract collages, scribbles, often nude photos of themselves and friends. No real drawing. I didn’t realise how strongly I felt about this and as I talked I found myself nearly in tears.
My advertising campaign design for Mike Nichols' *The Graduate*. A foundation of life drawing was invaluable when I had to draw this simple leg for this movie logo.

I just can't stress how important of a skill life drawing is in animation too much....
I harangued the deans of the art schools for failing in their duty to provide proper skills to their students. Surprisingly, when I finished, the deans called an emergency meeting to which I was invited. 'Look Mr. Williams,' they said, 'you’re right, but we have two problems. Number one: since classical drawing was rejected years ago, we have no trained teachers who can draw or teach conventional drawing as they never learned it themselves. And number two: our mostly rich students – on whom we count for our funding – don’t want to learn to draw. They would rather decorate themselves as living works of art – and that’s exactly what they do.'

So I said, ‘Look, all I know is that I can’t find people to hire or train; but otherwise I don’t know what you can do.’

They said, ‘Neither do we.’

Lately things have improved somewhat. So-called classical drawing seems to be coming back, but with a hyper-realistic photographic approach because skilled artists are thin on the ground. Shading isn’t drawing, and it isn’t realism.

Good drawing is not copying the surface. It has to do with understanding and expression. We don’t want to learn to draw just to end up being imprisoned in showing off our knowledge of joints and muscles. We want to get the kind of reality that a camera can’t get. We want to accentuate and suppress aspects of the model’s character to make it more vivid. And we want to develop the co-ordination to be able to get our brains down into the end of our pencil.

Many cartoonists and animators say that the very reason they do cartoons is to get away from realism and the realistic world into the free realms of the imagination. They’ll correctly point out that most cartoon animals don’t look like animals – they’re designs, mental constructs. Mickey ain’t no mouse, Sylvester ain’t no cat. They look more like circus clowns than animals. Frank Thomas always says: ‘If you saw Lady and the Tramp walking down the road, there’s no way that you are going to buy that they’re real dogs.’

But to make these designs work, the movements have to be believable – which leads back to realism and real actions, which leads back to studying the human or animal figure to understand its structure and movement. What we want to achieve isn’t realism, it’s believability.

While Tex Avery released the animator from the more literal approach in order to do the impossible, he was only able to do it so successfully because his animation was mostly done by Disney drop-outs who already had ‘the Disney knowledge’ of articulation, weight, etc. So, ironically, his rebellion, his ‘going the other route’, had its basis in an underlying knowledge of realism.

But don’t confuse a drawing with a map! We’re animating masses, not lines. So we have to understand how mass works in reality. In order to depart from reality, our work has to be based on reality.
IT'S ALL IN THE TIMING AND THE SPACING

I met Grim Natwick (born Myron Nordveig) in a Hollywood basement when he was in his eighties. Grim was the oldest of the great animators, being already in his forties when he animated eighty-three scenes of Snow White in Disney’s Snow White and the Seven Dwarfs. Previously, he’d designed Betty Boop for Max Fleischer, for which he received nothing and was furious about it ‘til the day he died, aged 100.

I’ll never forget the image of this big Norwegian American sitting in the golden twilight, extending his long arms and spatula hands saying . . .

...A-A-A-ANIMATION....IT’S A-A-ALL
...IN THE TIMING....A-A-AND IN...
THE SPACING...(LONG PAUSE)...
...STRAY-Y-Y-N-NGE....THAT THE
AMERICANS....WERE THE ONES
TO WORK THIS OUT...
The bouncing ball says it all.

The old bouncing-ball example is often used because it shows so many different aspects of animation.

A ball bounces along.

and where it hits – the ‘boinks’ – that’s the *timing*. The impacts – where the ball is hitting the ground – that’s the *timing* of the action, the rhythm of where things happen, where the ‘accents’ or ‘beats’ or ‘hits’ happen.

And here’s the *spacing*.

The ball overlaps itself when it’s at the slow part of its arc, but when it drops fast, it’s spaced further apart. That’s the *spacing*. The spacing is how close or far apart those clusters are. That’s it. It’s simple, but it’s important. The spacing is the tricky part. Good animation spacing is a rare commodity.
So we have:

The two basic elements of animation.

To experience this, take a coin and film it in stages under a video camera.

First plot out the *timing* — where you want the ball to hit the ground. Then push the coin around — taking a picture at each frame — and see what looks right or wrong. Try it with different timings and spacing. You’re already animating. You’re already dealing with the important fundamentals and you haven’t even made a single drawing. You’re doing pure animation without any drawings.
Hidden in this simple test is the weight of the ball — how it feels, light or heavy; what it’s made of. Is it large or small, moving fast or slow? This will all emerge if you do several tests — which only take a few minutes to do. The importance of the timing and the spacing will become obvious.

Because you did it, a certain amount of personality will creep into the action — whether the ball is deliberate, slow, jaunty, erratic, cautious, even optimistic or pessimistic.

And all this, before you’ve made a single drawing. This reveals how important and dominant the timing and the spacing is. Even if the ball positions were drawn in detail by Michelangelo or Leonardo da Vinci, the timing and the spacing of the drawings will still dominate.

Another interesting way to experience the difference between timing and spacing right away is this:

Let’s put a coin under the video camera and move it across the page (or screen) in one second — 24 frames of screen time. That’s our timing.

We’ll space it out evenly — and that’s our spacing.

Now we’ll keep the same timing — again taking one second for the coin to move across the page. But we’ll change the spacing by slowly easing out of position number 1 and easing gradually into position number 25.

It still takes one second for the coin to get over there. It has the same timing — but there is very different movement because of the different spacing. Both start together — and both hit the middle together — but the spacing is quite different. And so the action is very different.
You could say that animation is the art of timing. But you could say that about all motion pictures.

The most brilliant masters of timing were the silent comedians: Charlie Chaplin, Buster Keaton, Laurel and Hardy.

Certainly for a film director, timing is the most important thing. For an animator, it's only half the battle. We need the spacing as well. We can have a natural feel for timing, but we have to learn the spacing of things.

One other thing: The bouncing ball example is often used to show animation 'squash and stretch' – that is, the ball elongates as it falls, flattens on impact with the ground and then returns to its normal shape in the slower part of its arc.

It might squash and stretch this way if it was a very soft ball with not much air in it, but what

I've found is that you can get a good enough effect with a rigid coin – provided the spacing of it was right – so this added technique is not always necessary. Certainly a hard golf ball isn't going to bend all over the place. In other words, if you do this squishy squishy thing too much, everything comes out a bit 'sploopy', like it's made of rubber. Life ain't like that. At least most of it ain't. More about this later.

Having established all this, let's go to lesson one:
Stills from Charles Dickens' A Christmas Carol, 1972. We’re starting to get better. I got my first Oscar for this half-hour film made originally for TV. You wouldn’t think a lot of this was drawn by Bugs Bunny animators! It couldn’t have been done without Ken Harris who carried the load on Scrooge. Towards the end, Chuck Jones (the Executive Producer) lent us Abe Levitow, a great unsung animator with majestic qualities. We also had help from Disney alumni George Nicholas and Hal Ambro. My own stalwarts were Richard Purdum, Sergio Simonetti and Roy Naisbitt.
LESSON ONE

UNPLUG!

Unplug! Take off your head phones! Turn off the radio! Switch off the CD! Turn off the tape! Close the door.

Like many artists, I had the habit of listening to classical music or jazz while working. On one of my first visits to Milt Kahl I innocently asked:

MILT, DO YOU EVER LISTEN TO CLASSICAL MUSIC WHILE YOU'RE WORKING?
IY-IY-IY-IY-
- I'M NOT
SMART
ENOUGH
TO THINK OF MORE THAN ONE
THING AT A TIME!

I WON'T DO IT ANY MORE...
Since it came from a genius, this made quite an impression on me. After this I learnt to face the silence and think before swirling my pencil around. My animation improved right away.

This has been the case with many artists when I've passed this wisdom along. Recently, two previously sound-addicted computer animators were shocked to find that their plugged-in colleagues instantly made them objects of ridicule for not having wires coming out of their ears. They were even more surprised at the startling improvement in their work.

... end of lesson one.

Photo: Frank Herrmann

Portrait of the artist after receiving lesson 1.