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Design Visual Communication

"ANIMATION IN ADVERTISING"

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INTRODUCTION

The intent of this thesis will be to explore the relationship between animation and advertising. I will attempt to explore the ways this relationship has affected both forms of communication. In order to gain a clear picture of this relationship, I will trace in chapter one the history of animation from its origin to the present day. In tracing its history I will show how animation has found itself in increasing demand from a wide range of sources. I will describe how industries such as television, advertising, film, public relations and education are all making use of this medium and, why these industries have turned to animation. I will also discuss the effects that this relatively new demand for work has had on animation, with particular reference to the creation of the Designer animation clique. M.T.V. (Music Television) has to a large extent been held responsible for producing this style of animation. I will explore this possibility and in doing so I will discuss the work of Andrew McEwan who has recently worked on an animated sequence for M.T.V. Some of the changes that have taken place in animation over the past ten years or so belong to presentation, updating traditional styles and creating contemporary techniques. I will discuss this increase in
variety of style and technique and I will show examples of animators and their work, that employ these more

contemporary techniques.

Within chapter two I intend to discuss why advertisers in particular have turned to animation. I will also provide examples of successful animators who work within the advertising industry, such as Will Vinton and his company Claymations. The television industry has greatly influenced animation and I intend to explain the effects that television graphics has had on contemporary animation. In order to discuss this aspect of television. I will concentrate on Britain who is seen to lead the world of T.V. graphics. I then intend to approach the argument regarding advertising affects on the art of traditional animation. I will discuss how both computer and designer animation have replaced traditionally animated T.V. commercials and the result that this has had on the art of traditional character animation.

Computer Animation is being used on an increasing scale and it is within chapter three that I intend to examine its uses, possibilities and effects on traditional animation. I will give a brief history of its existence but I will explain in more detail how a computer animated sequence is produced by discussing it's three main stages: Input, processing and output. I intend to compare the views of
both computer animators and traditional animators and I will pay particular attention to the work of Matt Forrest. He uses traditional techniques but recently

employed the use of a computer to make a T.V. commercial for Rowntree (Smarties). I will then explore the use of animation within the film industry. Computer animation has proved itself indispensable to special effects within science fiction films. I will trace the history of special effects from 1902 to present day. This will introduce I.L.M. (Industrial Light and Magic). this is a company who specialise in film effects and I will provide examples of their work including the recent film Terminator 2. I will also examine the influences from the advertising industry on this company who are now producing television commercials.

Fig. 1a: Snow White. (Walt Disney).

Fig. 1b: Snow White and the Seven Dwarfs. (Walt Disney).

CHAPTER 1

The Changing face of Animation

Although animation as a medium is relatively new to the arts and visual communication in general, it has made considerable advances since its birth in 1900. The history of animation has developed alongside cinematography and its initial progress over the years can be divided into 4 main stages.

The first period which began around 1900 relied mainly on trick work which at the time was considered all part of the magic involved with the new world of cinematography. The second stage followed in the years 1908-1917 where animation first became comic entertainment. These cartoons were so successful that their characters became as famous as live stars. But it was not until the arrival of the soundtrack that animated films really came into their own. With it begins follows the third stage. It was Walt Disney that first took full advantage of synchronised sound, and it was the following ten years from 1928 - 1938 that animation and its loveable characters became a phenomenon in cinema entertainment. It was during this time that Disney released the first animated feature film Snow White and the Seven Dwarfs (fig 1 a and b). Together with quality animation, colour, music and sound effects it brought animation to a new level of maturity. Stage 4 occurs after 30 years of

practical domination in the world of animation by Walt Disney. Other animators now began to find they work in increasing demand. The advertising industry had discovered the advantages of animated commercials for both cinema and television (Hallas & Manvell, 1959, pp 13-14).

Within a very short space of time animation proved itself indispensable to advertisers. The animators work was now in constant demand and although television was fast becoming the main market for advertisers there were other industries requiring promotional work. Industry wanted animation for public relations and technical construction. The leisure and entertainment industry needed animation for special effects, and the television industry also provided many new assignments for animators.

I feel that because of the increase in demand for animation from industries such as television and advertising, that a real change began to occur within the world of animation. I believe that television and advertising were of most importance to the development of animation because the animators work could now be received by a huge audience and with a certain degree of consistency. Through television the advertiser was able to reach a bigger audience and all this was possible through the animator.

Fig. 2: Channel 4 logo.

The logo was designed as a part of a corporate identity and was produced completely by computer animation in 1982. It was the first station ident to be created in the U.K using this technique.

Today the situation remains the same and although new areas of exploration have opened up to the animator, such as Visual Reality, the television and advertising industries still remain the main clients for animation. Television is constantly supplying animators with new assignments. Animation now provides lively opening sequences to programmes as well as colourful titles, inserts and excerpts. Because these opening sequences are so short animators have had to develop and improve their approach to this new problem They have had to learn to convey a message within a time space of approximately fifteen seconds. They must also make sure that the message is clear, concise, visually stimulating and, above all, memorable.

I feel that because of this relatively new demand as animators they have had to develop their work to suit the needs of the television industry. Although some of the work produced for individual stations has been exciting, for example Channel 4's colourful logo (fig 2), some animators have failed to develop work of a more personal nature. I believe that because of this constant demand from television, animators can neglect to nurture their talent and to produce their own work, which might help to make animation a recognised art form. So although the advertising and television industries have promoted animation over the last decade or so and have encouraged further development of style and technique, I feel it has also hindered the development of the more artistic

nature.

Animation has also changed and evolved over the years within the production of educational films. This is one area where the special values of animation can be seen clearly. It can show a very complex problem quite simply. For example, film can use live action and then change to animation where certain points need explanation and where live action cannot do so adequately. A diagram can be easily superimposed on an image and in doing so can simplify a principle that would otherwise have been unclear. Animation with its flexibility can introduce a great variety of graphic styles in order to emphasise a point. Animation has also become indispensable to public relations. It has the unique ability to change what might appear having to become amusing and exciting. It is possible using this medium to make facts, figures and systems interesting, amusing and crystal clear. (Halas 1990 pp 38-39). Again we can see that even though individual industries have promoted and encouraged the use of animation, it has changed and adopted itself to suit the industries requiring its work and has to a large extent neglected to mature animation for its own sake.

So far we can see how most animation is used merely as an aid to other forms of communication such as television, film and advertising. Nevertheless most of todays population absorbs its information, entertainment and learns it's lessons via the means of the moving picture,

Fig. 3: Yoplait Yogurt.

i.e. television and cinema. it has been proven that viewing has become one of the most time consuming occupations of our civilisation (Hallas, 1990, pp V11). Every time we turn on our television sets we witness the latest techniques and advancements in animation, from opening sequences, to our favourite programmes, to the moving logos of each individual station. Although we may not realise it we are constantly viewing animation in its many forms, styles and techniques. Because of the increase in contact with animation it is viewed by all ages and the public have begun to accept it as something more than just children's entertainment. In fact one could go as far as to say that animation has even become fashionable. After all it was due to animation that the Terminator in Terminator 2 became so successful. Animation makes programmes like M.T.V. (Music Television) so visually exciting. It is with the use of animation that the products advertised on our television seem to defy all reason, for example 'Yoplait Yogurt' (fig 3).

However I feel it is more accurate to say that animation has become a slave to fashion and current trends. I believe that Advertisers constantly move from one young animator to the next, continually searching for the next fashionable, stylistic novelty. There is little wrong with this constant search for original visuals, but this creates pressure on young animators to produce work quickly which can often result in work that holds little concept and virtually no content. The advertising

Fig. 4: Andrew McEwan holds the dragon which stars in his title sequence for M.T.V.

industry is also consuming this work at such a vast rate that they tend to devalue the finished work (Ognjenovic, August '89 pp 34). This constant hunt by the advertising industry to find young animators that have the ability to meet the demands of current trends and fashion has resulted in the birth of 'Designer Animation'. This type of animation depends mainly on style and tends to hold little regard for content and concept, but instead relies heavily on glossy visuals that are snappy and colourful. (Ognjenovic, August '89 pp 34). M.T.V. (Music Television) is the main client for this style. It shows a lot of animation and provides many young animators with the opportunity to have their work shown to a very large audience. However, every animated sequence shown on the T.V. programme must eventually culminate to reveal the M.T.V. logo, or advertise a programme being aired on this channel.

Nevertheless, there are of course exceptions to the rule and animator Andrew McEwan is one of these exceptions. McEwan worked on a sequence for M.T.V. in 1991 which dealt with confrontation, metamorphosis and travel, (fig 4). It begins with a conflict between a larva and a dragon. The lava changes into a bug, which then goes on a journey to eventually realise the M.T.V. logo.

McEwan also won a B.A.F.T.A. award in 1991 for the best short animated film. He won the award only months after he left college, with his degree film Toxic (fig 5). He

Fig. 5: Toxic.

graduated from the West Surrey College of Art and Design and from the R.C.A. Toxic is the story of a confrontation between a group of scientific specimens and a constantly mutating monster; it was nightmarish in execution and humorous in concept (Murphy, May 1991, pp 49-50). Although M.T.V. provides young animators with an excellent opportunity to air their work, they will show the sequence hundreds of times which will eventually bore the audience and devalue the animator's work. Nevertheless, Music Television has been vital to the world of animation and has promoted it's use and created an ever increasing contact between it and the public.

Some of the changes that have taken place in the past decade or so belong to presentation - updating traditional styles and creating contemporary techniques.

Increase in Variety of Style and Technique:

Because of the increasing demand on animators to become more creative and technically efficient there has been a large increase in the variety of styles and techniques that are being used today. This has been caused to a large extent by the advertising industry. Advertisers constantly search for the most creative, stylistic and expressive form of animation to advertise a new product, and as a result we have seen commercials such as 7 Up, Yoplait Yogurt and Smarties.

Fig. 6a: Beauty and the Beast. (Walt Disney).

Fig. 6b: Characters from Beauty and the Beast.

The techniques practically all animation studios practise today can be segregated into three main areas. Needless to say a lot of work mixes techniques from all areas. They are as follows:

1. Animating flat: Cell, paper, cutouts, collage and painting under a stop motion camera.
2. Three dimensional approaches: puppets, wood, clay and plastics.
3. Computer generated animation.

Flat animation was the first method to be used, but 70 years after the invention of cell, it is still used widely; with recent technical improvement it remains the most popular medium for traditional animation. It's very flexible and easy to handle; it can be drawn on with ink, cell paint and cell pencils. It's also possible to paint textural surfaces and forms on it. From Walt Disney's Snow White and The Seven Dwarfs to Beauty and the Beast (Fig 6 a & b) it's use and importance to the art of traditional animation is clearly evident. (Halas 1990 p p 18-19).

Cutouts and collage are one of the most inexpensive forms of animation, based on simply moving pieces of paper and altering their sizes and shapes, one frame at a time. The master of this technique is Yuri Norstein. He is considered to be somewhat of a contemporary poet who

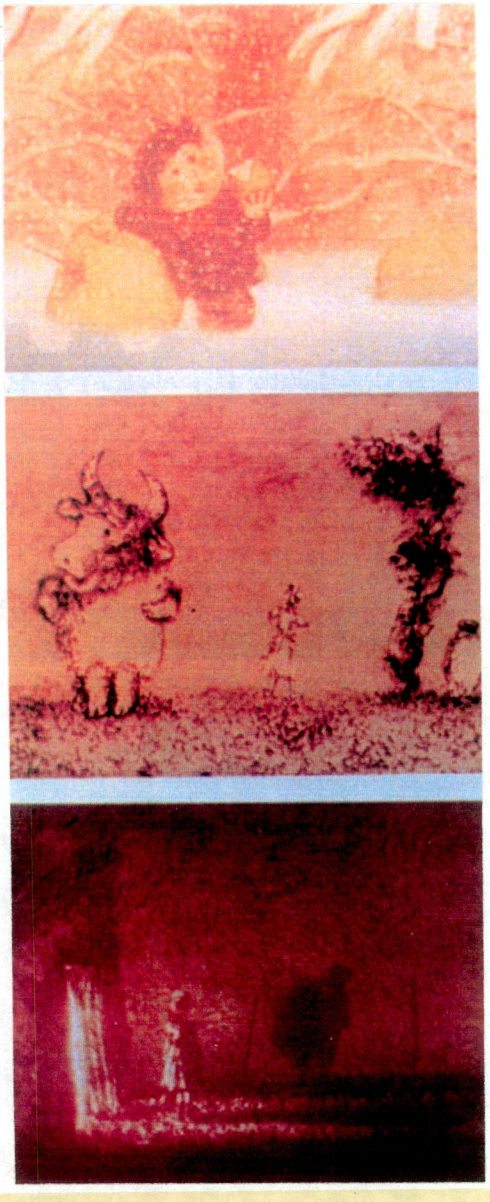


Fig. 7: The Tale of Tales. (Yuri Norstein).

conveys his ideas through animation (fig 7):

> "My technique combines good and bad sides of animation which may be reflected in various ways. In my case it allows one to subsidise the entire artistic background created for the needs of a film to my inner ideas, to my artistic credo. On the whole, animated films are all the better for technical limitations. In an animated film everything must be created from the very foundation. One has to choose and find all the necessary elements" (Halas 1990 p p 18-19).

Norstein is one animator who constantly pushes the boundaries of one technique and has little interest in animators who feel the need only to reach new heights of technical advancement. He has concentrated on one area, collage and cutouts, and has developed his medium within it's technical limitations. As a result I feel his work gains increasing depth of a more artistic nature.

Painting pictures under stop motion camera is another of the flat animation techniques. It allows the animator to retain his/her individual style. Although painting frame by frame under a stop motion camera can be very time consuming. The results can be very unique. the quality of individual brush strokes can be retained and the work produced using this method can appear as if an actual painting has come to life. Polish animator Witold Giersz employs this technique. he retains the characteristic brush stokes of a painted surface as his figures move.

The second technique is that of the three disensional approach. Three dimensional animation is very versatile

Fig. 8: Creature Comforts. (Aardman Animation).

and it covers a wide range of materials. However, the physical handling of the materials can be quite difficult; the materials range from hard wood to plastics, wire and clay. Clay, the most popular material today, can be used to show metamorphic transformations because of its malleability. However, although clay is versitile, many problems and difficulties arise with this medium. Clay materials dry quickly and can easily shrivel and crack if left unattended for a long period of time. Fingerprints are a constant problem and if the lighting is too hot the clay can melt. But if manipulated correctly the results can be magnificent. Claymation has also proved very successful within the advertising industry,producing work such as 'Creature Comforts' by Aardman animations (fig 8). (Halas 1990 p p 17-26).

The advertising industry has profited greatly from animation. However, recently advertisers have been turning to computer animation and most T.V. commercials we see today make use of this relatively new medium.

Animators are now enjoying the freedom of a wider and more varied audience, and it is only within the past ten years or so that they have had the freedom to become more creative, expressive and original. Because there is actual physical contact with the material, animation can act as an extension of the animator's mind and body. Due to the various materials highly malleable qualities,

extremely expressive work can follow.

Chapter 2

Animation in Advertising and it's effects on the art of traditional animation:

Why Advertisers have turned to animation:

Advertising production for television and cinema has always been a prime source of revenue for the animation industry. There are many examples which make animation so appealing to advertisers. For example, animation offers great freedom and has a huge capacity for quick change, simplification, humour and the ability to make a product do or become anything. The length of an average animated commercial may be 30 seconds. Because of this strict discipline animators must have the skill to compress and simplify a storyline and produce a successful piece of work within such a short space of time. Few artists have this skill, but those who do are well rewarded and perhaps it is due to this financial temptation that most young animators turn to the advertising industry instead of pursuing animation on a higher artistic level.

Animation is one of the most expressive forms of communication and it has the unique ability of being able to reach all area of the public. The advertising industry

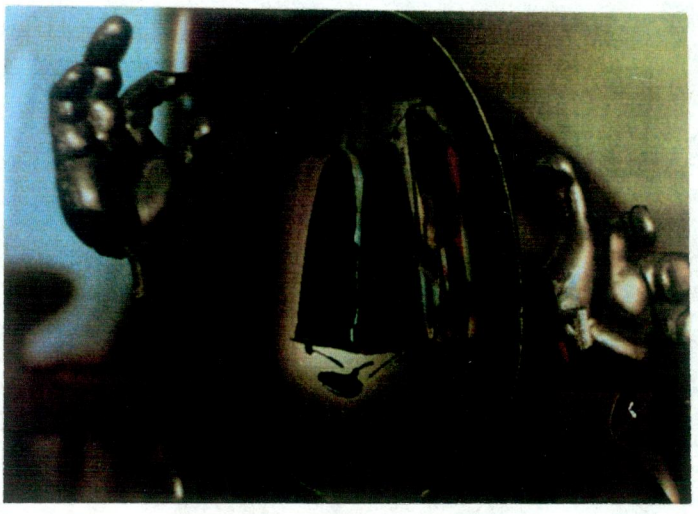


Fig. 9: Yoplait Yogurt.

was quick to realise this fact, but more important to the advertiser is an animator's ability to make a product do or become anything. Animation can endow a product with human characteristics: for example, 'Yoplait Yogurt' advertise their product with the aid of computer animation. Within this well known advertisement (fig 9) the spoons come to life and rescue the yogurt from a thieving goblin. The spoons are given life and become characters making it easier for the public to identify with the product, whilst also including humour and a sense of adventure.

Of course once the advertising industry discovered the value of computer animation it became one of the main users of the medium on television, from fully animated T.V. commercials to T.V. graphics. It was within a very short space of time that advertising had become the main client for computer animation. Because of advertising's highly competitive nature, it has always pushed animation to become ever more creative and technically expert. As a result of this, every day we view some of the most specular animation that is being produced via our television sets, for example Robert Abel and his team's T. V. commercial for Berger Paints (Fig 10).

Successful animators in advertising:

With the ever increasing growth and success of the advertising industry, there are more and more successful

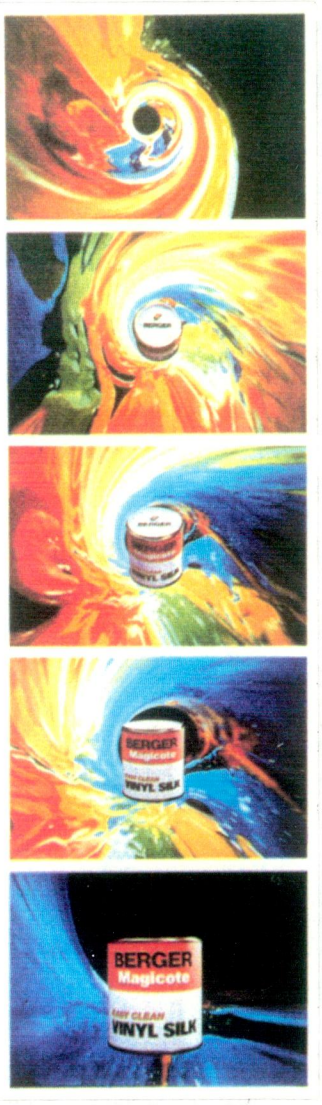


Fig. 10: Berger Paints.

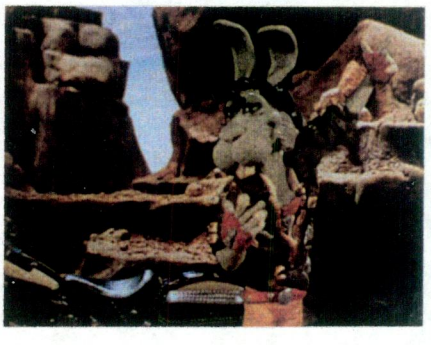


Fig. 11: Speed Demon. (Moonwalker).

animators receiving recognition for their work within the field of advertising. One such animator is American Will Vinton. Vinton's success in the world of animation lies in his ability to produce humorous and visually exciting T.V. commercials. Vinton's medium is clay and perhaps his most well known advertisement are the 'Raisons'. The idea was originally conceived to sell raisons for the California Raison advertising board. Vinton transferred his raisons into famous personalities such as Ray Charles and Michael Jackson. Vinton also worked with Jackson on the 'Speed Demon' sequence from 'Moonwalker' (fig 11). Will Vinton productions and Claymation's rapid growth and success have made them household names in the U.S. While the 'Raisons' ran it competed with the 'Cosby Show' for top television ratings. (Murphy-, July 1991 pp 27). Vinton productions now has representatives in Paris, London, Tokyo, New York and Chicago, all there to generate international work, mainly T.V. commercials. However, some people feel that business has taken over creativity.

> "Is this an attempt by Vinton to become the Disney of clay animation - a vast film factory, with often questionable results?" (Murphy., July 1991 pp 27)

Nevertheless, studio president David Altshul denies this fact and insists that the initiative is creatively led:

> "I think the reason a serious marketing effect is important to the company is we want to have control over what we make - this way we can pick and choose what we want" (Murphy, July 1991 pp 27-28).

Fig. 12: Nick Park. (Aardman Animation).

The Company's success cannot be denied. It was set up in 1975 and has produced over 70 commercials, T.V. advertising still being it's biggest client. Gradually over the past six years Vinton has been reducing his managerial responsibilities and now intends to return to animating for himself again (Murphy, July 1991 p 9 28).

Aardman animation studios have also produced many T.V. commercials using clay animation, their most well known being 'Creature Comforts' (fig 8), which won an Oscar for best animated short film. 'Creature Comforts' was used to advertise Electricity and the animator behind the commercials success was Nick Park. Park has worked on many commercials for Aardman, most of which use clay animation. However, in an advertisement for french crisps, Park employed the help of a computer (fig 12). The 20 second commercial involves a gloved hand that reaches for a crisp. The hand was made from latex with a metal ball-and-socket jointed armature. The computer was used to place the crisps under the artificial hand. It was a success and, in an interview with Park he was quoted as saying:

> "It's a pity it was such a short add, it was such a great hand to work with - the model hand gave us more independence, more play and more freedom than you would get even from the real thing" (Blackwell, February 1990 pg 9).

Obviously some materials had been developed to such a high standard that they prove better than the real thing.

But that's what animation is here for. Animation is at it's best when showing what live action cannot.

Television Graphics:

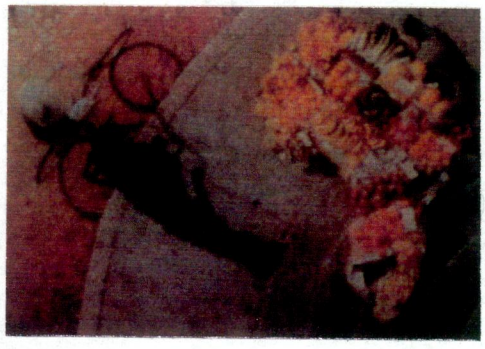
It was not until the late seventies that the television and advertising industries took to computer animation in a big way. But only within a very short space of time audiences around the world began to witness something never seen before. From television announcements to titles and commercials, new forms and shapes emerged, disintegrated and reassembled themselves in the most vivid of colours. Audiences witnessed dazzling lighting effects on their screens all with coordinated sound-tracts. It is a contemporary branch of animation which proved essential to the science fiction film industry. It enables the television industry to become more visually stimulating and, of course, it allowed the advertising industry to become ever more prosperous. (Halas 1987, pg. 122).

The television industry at this time was at a point of rapid expansion due to the effects of a lively animated opening sequence. Television needed this approach to advertise and present programmes with maximum visual impact in a very short space of time. In fact, until recently T.V. depended upon their own internal graphics department to provide titles, inserts, excerpts and advertisements. However, although now the television

industry employs the use of freelance animators it has been proven that this supply is no more expensive. Indeed they supply television with more imaginative and creative work than ever before.

During the 'seventies and 'eighties the range of possibilities and assignments widened considerably. Up until now T.V. graphics and animation concentrated on titles, television advertising and science programmes, but there was an ever increasing demand to produce highly creative and startling announcements for forthcoming programmes. The main objectives of these announcements is to create an instant impact with the audience, but which will also prove memorable.

Britain has always been one of the leading countries in television graphics. Their most recent work B.B.C. 2 proves this. We can all recall the highly memorable series of channel advertisements that have been produced and are currently running. A very bold number 2 is used in a variety of ways. It is doused in blue paint and seems to defy gravity; it is dropped onto a bed of chalk, disturbing the surface to reveal a bright colour. They are all shown in startling clarity of colour with an ear-splitting soundtrack. I feel it's success lies in it's originality of concept and content and it never fails to surprise it's audience. But what I find of most interest is the fact that none of the images are computer generated. It seems to signify a move away from



a

Fig. 13: Sue Worthy.

b

the glossy images produced by computers.

Britain's success in the field of T.V. graphics and animation is due to an ever increasing number of designers and animators such as Sue Worthy. Her work includes a spring promotional for B.B.C 1 which we saw in 1992 (fig 13 a & b). Her work is striking and she says herself.

> "You get so much more out of it when you push things. Give them the quality they expect but surprise them a little. (Fron, June, 1990 Pg. 62).

The British approach to T.V. graphics has been that of branding stations and creating a highly developed sense of identity.

> "Audiences will understand whether an identity is true to a channel or not. They will interpret the design. Programme design is becoming much more astute in the way that they understand the quality of a programme, a script, a piece of design". (Oldersey - Williams, April 1990 P. 23).

I feel that what Ross is saying here is that because of the public's increased awareness and contact with T.V. graphics and animation they are becoming more sophisticated in their needs and expectations. Also due to this recent contact I feel that they are now capable to some degree of deciding whether or not a channel lives up to it's identity or if the identity is at all suitable. I also feel that it is because of a certain understanding of the public's needs that makes British T.V. graphics so successful. Ian St. John, Managing

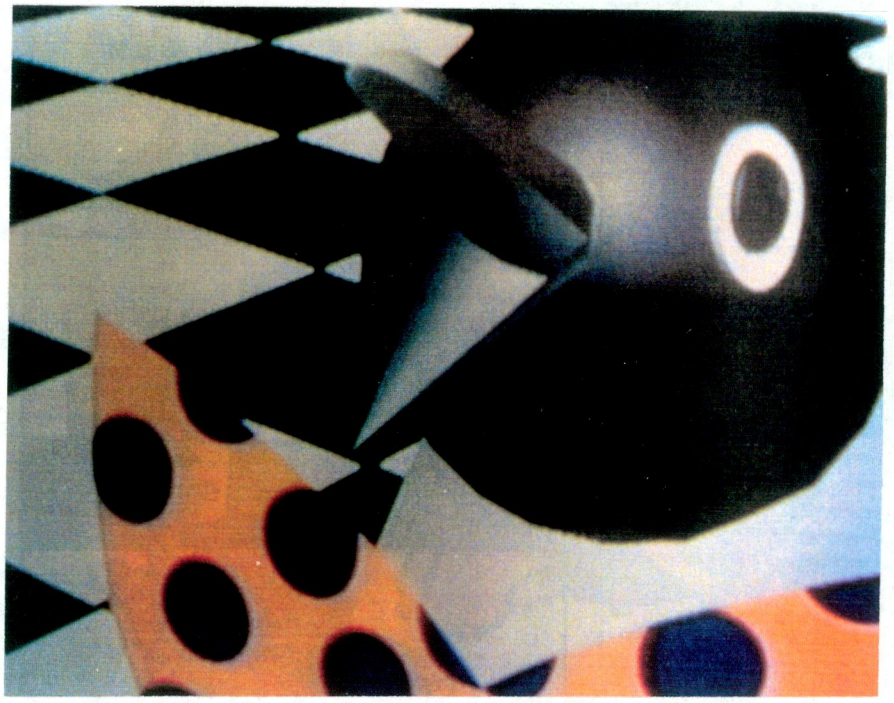


Fig. 14: Zoptic.

Director at RL-N (a leading graphics and animation company) says:

> "There is no other country that I know of where television is sufficiently developed for what we do to be seen as something that needs to be done". (Aldersey-Williams, April 1990 p. 23)

However Britain is beginning to lose it's lead on this industry and the margin is closing gradually between Europe and the U.K. (Austin, May 1991, Pg. 37). If we look to Europe we can see an ever increasing standard of graphics and animation being produced. In particular, Spanish T.V. graphics are receiving more recognition. Zoptic is the name of a Spanish design team whose approach to animated T.V. graphics has taken Spain by storm. The company of three have taken Spain's L.A.U.S. award three years running for their work on T.V. and now advertising agencies are screaming for their help. Zoptic has a bright but straight forward approach and their inventiveness is attracting producers in their droves. (fig 14) (Kelly, February 1990, pp. 39 - 40). Because of this increasing standard in animated graphics, artists that work within this field are constantly pushing themselves to become more creative and technically efficient. As new equipment reaches the market, animators will be in a position to further enrich their capabilities, using more colourful palettes, textures and shapes.

Advertising's effects on the art of traditional

Animation:

Since advertising's discovery of animation and it's uses it has both encouraged and promoted it's great potential. However I do feel that advertising has also harmed that art of traditional animation. Character animation is fast becoming an endangered species and more and more young animators are finding the call of the advertiser harder to resist. I believe that it is because of advertising's pressure on young animators, to produce work within a very short space of time, that the resulting effect was the birth of Designer animation. I have explained earlier that designer animation consists of glossy graphic visuals of little content and, in my opinion, the advertising industry helped with it's creation. Nevertheless advertisers are merely concerned with the selling of a product and if glossy visuals are all that is needed in order to do so we cannot expect the advertiser to concern themselves with animation of a more artistic nature.

Perhaps one of the main reasons for young animators neglecting the field of traditional animation is the lack of relevant courses available in colleges.

Eric Goldberg of Pizaz Pictures says,

> "There are certain ground rules in animation and no one's teaching them - some of the young animators I have seen have picked up techniques like squash and stretch and distorted it until their characters look

like moving waterbeds" (Oqnjenovic, August '89 Pp. 34).

He also feels that designer animators have no real skill in animation technique,

> "The vogue for novel visuals is ok, except that at the rate at which they are being consumed by the add industry devalues the images. Advertising simply is not nurturing talent. It goes from one young animator to the next, moving onto the next stylistic novelty. It's a kind of asset-stripping. I just don't think that advertising is giving young animators the opportunity to broaden their style". (Oqnjenovic, August '89 P. 34).

Most animators realise that computer animation and designer animation have largely replaced traditionally animated adds. Oscar Grillo is one such artist. He mourns the loss of so much animated film making and believes that the complexity and value of Disney's work is constantly overlooked. (Oqnjenovic, August, '89 Pp. 34)

> "The joke is, people think Disney is simplistic and basic, but I saw a Disney B feature the other day, called Bongo, about a bear that lives in a circus and goes into the world; the way that animators let the scenery talk, the way they put across their message was astonishing, and it's all hidden within it's fabric. It took more effect to read this film than it does to read the East European work we see now, with it's simple ideas and single minded techniques". (Oqnjenovic August '89 P 36).

Grillo hates the division occurring in animation between designer, traditional and computer cliques. he hopes to combine old techniques with new,

Fig. 15: Who Framed Roger Rabbit.

> "We could mix the method of the past with the vision of the future." (Oqnjenovic, August '89 P. 36).

We have recently seen a film that combines traditional character animation with more modern methods; This was a course Who Framed Roger Rabbit. (fig 15). It was extremely successful and the blend and mix of the old and new worked very well. However instead of mixing the method of the past with the vision of the future, it mixed the vision of the past with the method of the future, by combining traditional characters with highly sophisticated computer techniques. (Oqnjenovic, August, '89 Pg. 36)

Traditional animation can only prove it's excellence when in motion. Therefore a single frame taken from any great animated film will not appear as impressive as a highly finished piece of designer animation. Therefore when working in advertising it becomes very difficult to persuade your client that traditional animation should be used. Apart from a few early line tests, there is nothing to show for weeks on end. (Oqnjenovic, August '89 P. 36).

Hopefully traditional animation will not be forgotten and will return soon. I have no doubt it will, but perhaps only when Animators and audiences alike consider somewhat of a novelty.

Chapter 3

Computer Animation:

Today's animation tools no longer consist of paper, pencil and ink, today's materials consist of the keyboard, stylus and computer screen.

Since the Renaissance the painter's tools have remained the brush, canvas and paint. Today an animator, whether working in two or three dimensions, has an ever widening range of tools and materials. During the '70's and '80's photographic camera techniques had developed a wide range of optical special effects, so even before the development of computer generated techniques animation was undergoing changes that relatively few art forms had ever experienced. (Halas, 1987, P. 114).

Computer animation was probably first used in the U.S.A. in a meterological department where maps were drawn over the Artic Circle to show the movement of air mass, for the use of weather forecasting. Computer graphics and animation proved very useful and soon computer aided animation had
begun to be used on a wider scale. A simple method of drawing images with a computer was developed by a computer engineer called Dr. Evans, it consisted of

'electronic tablets' that animators could draw onto using 'light pens'. Initially these new tools for the computer were used for scientific research. As the development of the machines moved into more complex areas, one of the problems engineers encountered was how to make it easier for
the artist to operate the computer. But eventually this problem was solved and programmes were developed that enabled the artist to use millions of different colours, alter the shape and size of an object, all at the touch of a button. (Halas, 1987, P. 115).

The first computer generated films were produced in 1951 on a system called Whirlwind but the resulting work from this computer had very little artistic impact and was of technical and scientific interest only. However, in the last 40 years computer software has developed at a vast rate and today with systems like Paintbox, Quantal and Harry, there are practically no limitations on the artist that operates them. the process involved in computer aided animation is highly complex but can be separated into 3 stages, that of input, processing and eventually output. I will give a brief description of these stages in order
that the concept of a machine producing work of an artistic nature becomes a little less daunting.

Input is the first process to be dealt with and involves feeding the necessary information into the computer.

There are several ways of doing this, the most basic being through the keyboard or the joystick. However these methods tend to be somewhat limited in their capabilities. The graphics tablet or (digitizer pad) is the most popular method of input. This is the most versatile method and can cope with technical drawing or even digitized painting. These tablets are easy to use and require very little professional instruction. The pad consists of a white plastic surface which is fitted with a matrix of horizontal and vertical wires, an electronic signal is passed via these wires to the computer through a stylus. Another method of inputting information is via the means of a video camera that has been connected to the system. This is often known as an image-grabber. It can capture artwork or photographs which will then appear on the computer screen and can be modified using programmes such as a digital painting system. (Halas, 1990, pp. 27-30).

Processing is the second stage involved in the production of a computer animated piece of film footage. As most computer systems vary to a large extent it is difficult to define any standard form of processing information. Each systems ability to manipulate information stored will depend on the software being used. It is possible to generalise to some degree about software currently available. Those who wish to operate only in 2D will use programmes that have been designed for technical drawing and with some basic modification can be used for

animation. There is other software that can manipulate scenes in three dimensions which will give true perspectives and will allow for the placement of imaginary light sources.

It is within each systems output that most technical development has occured over the past few years. The first device used for output was the pen plotter using paper or film, this method is still used where working drawings are required or where cells are to be coloured. The most commonly used method of output is the display processor which allows the images to be displayed on a video moniter. An Analog camera then photographs the images from the monitor. However there is also the digital frame which works on a similar way to the analog camera except that the image is transferred digitally from the computer to the camera and with this method the resolution is a lot higher, resulting in better picture quality. Video is also a popular method of output, its popularity depends on its speed, flexibility and cheapness of operation (Halas, 1990, Pp. 27 - 30).

With this new and ever expanding technology, animators are finding it possible to create whatever they wish, but I feel one must remember that the computer is just a tool to be used in conjunction with pre-conceived ideas and concepts.

> "The most important factor which animators have to comprehend is that they need not lose artistic

> integrity, and that the computer is an instrument which does not take control". (Halas, 1990, P. 32).
>
> "Computers are a means to an end, and without aesthetic sensitivity that end cannot be successfully reached. Put these machines in the right creative hands though and the only limit is the art director's imagination". (Bloom, August, 1991, P 32).

However there are some traditional animators that feel computer animators are becoming glorified operators who produce glossy work of little substance. Art director John Lasseter tells the story of;

> "a psychotic animator who burst into the animation department of a major studio wielding a pistol. Having had his work rejected, he is hell bent on revenge. Finding three people in the room, two at light boxes with paint brushes and one at a keyboard, he fires twice and leaves. Later in Court when the Judge asks him why he did not kill the third he scornfully replies 'what kill a typist?'" (Raymond, November 1990, Pp. 47 - 48).

To me the story's message is perfectly clear and although computer animators such as Lasseter have improved the standard of the medium he is still seen as an exception to the rule. Increased technology and improved techniques do not equal automatic success in producing a piece of work. I feel that there are a lot of computer animators who are more interested in exploring technology than producing an animated film which possesses more traditional characterisations and narrative structures. This fact is proven when one studies the submissions from computer animation houses for British Animation Awards. The award for technical achievement attracted nine

entries but the narrative shorts category attracted none. (Raymond, November 1990, Pp. 47 - 48).

Matt Forrest who animated the successful 'Gremlins' advert (fig 16 - 17) feels that operators who call themselves animators are the cause for the declining standards associated with computer animation.

> "I'm not trying to be nasty about this, but some of these guys are pathological liars. They tell you they can animate, and what you get back from them is your figure with, say, a rope curling around him like it's an iron bar. In your trace it did it sexily, in theirs, it's doing it technically. It's just a solid object moving along a set of pre-determined paths. - That is not animation it's addition and subtraction - and they say it's the machine. Can you imagine a designer saying that! Sorry man, I can't get my pencil to do what I want". (Raymond, November 1990 Pp. 47 - 48).

I feel this is a crucial problem to the development of computer animation. It is being used to support other methods of animation and in doing so must be disguised. Perhaps if computer animators concentrated on developing their medium in terms of ideas and concept, and didn't constantly try to disguise the fact that computers have been used, they would eventually regain respect and critical recognition within the art world. However, this is not to say that the standard of all computer animation is low. There are many examples where it has been used successfully.

Matt Forrest and the Snapper films team produced a T.V.

Fig. 16: Smarties. (gremlins).

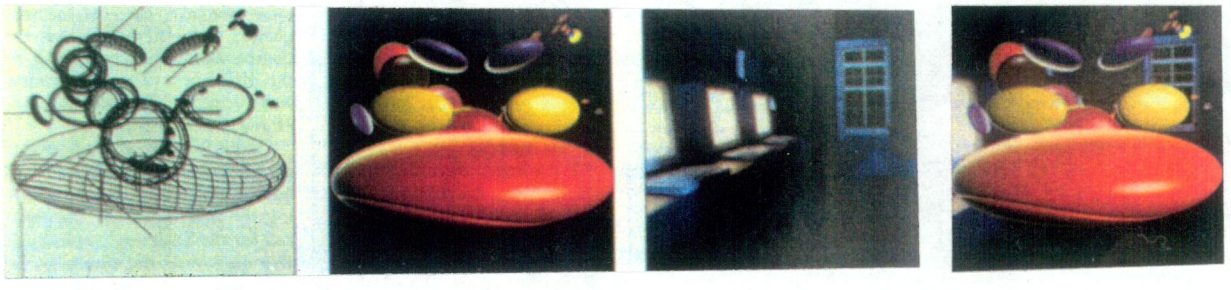


Fig. 17: Smarties.

commercial to promote Smarties, mixing live action with computer animation (fig 16 - 17). The 'Gremlins' (smarties) advertisement has to be one of the most successful pieces of T.V. advertising where live action is mixed with computer animation. The strength of the commercial is evident in that there is little change from the original storyboard, through to the final computer animated-live action epic. The story of Gremlins involves a lone tube of smarties in a classroom, as the camera zooms in on the tube it bursts open and out come the smarties. They form into mischievous characters and begin their adventures as they travel through the school. They squirt paint on a portrait of the headmaster, play the musical instruments and finally tip a bucket of chocolate over the caretaker's head. It's a humorous story and gives great character to it's animation. In order to create this amazing school precise models were made of highly detailed classrooms and it's equipment (chairs, desks, blackboards etc) and their cameras were able to move through these models easily. the models were all created by 'Asylum' all the moving elements in the commercial were created on computers and at a later date were matted in. (Blackwell, August '89, P 18). Even though this had all been done before, Forrest was looking for a new level of precision;

> "The lens we used, the focus pull, the lighting - everything was taken into consideration and re-created on the computer." (Blackwell, August, '89 P. 18)

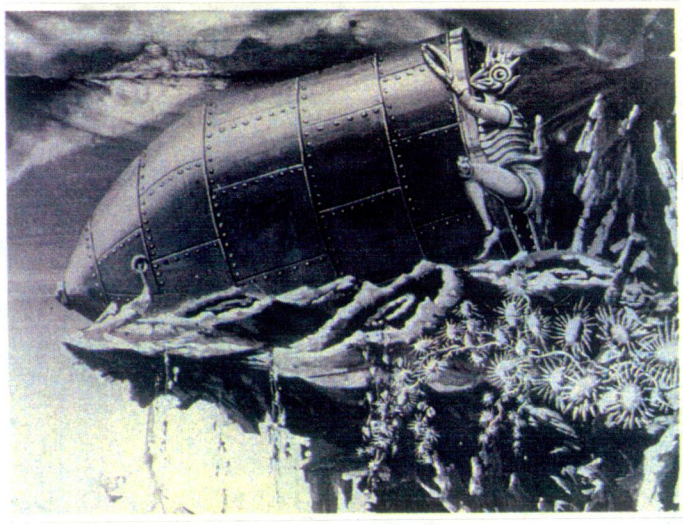


Fig. 18: The Man in the Moon.

Fig. 19: King Kong.

Fig. 20: The War of the Worlds.

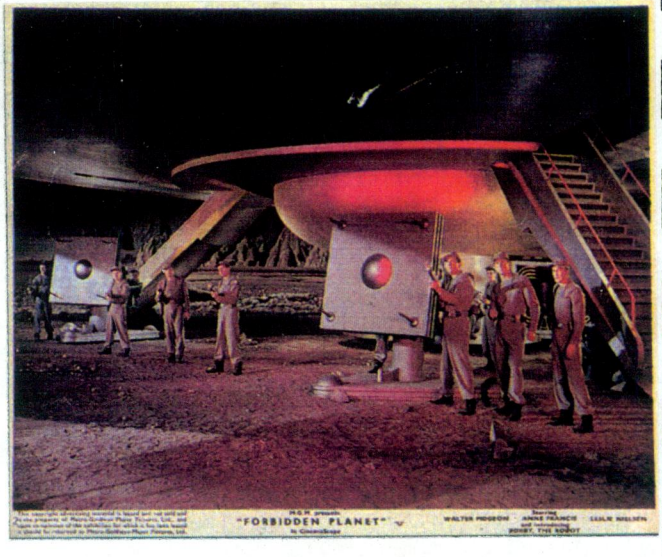


Fig. 21: Forbidden Planet.

Snapper had invested in it's own computers. Three symbolic machines called Snap, Crackle and Pop. Their reason for doing so was that they were able to keep any software they created instead of having to leave it with another company. (Blackwell, August '89, Pp. 17 - 18).

The whole operation took just over two months and it's success was largely due to the precision marriage of live action and computer animation. Their client, who was Rowntree, gave every encouragement and even went as far as recording the making of the commercial for the Smarties Museum. (Blackwell, August'89, P. 18).

Computer animation in the film industry:

Computer animation has become an essential element in the making of films which require special effects. Today there is little restraint on the film makers imagination, for computer graphics and animation can make any idea possible. However, special effects within the film world is not a recent development. For example, in 1902 George Melies used paintings combined with double exposures to create the first science fiction film The Man in The Moon (fig 18) (focus, January, ' 93, P. 12). In 1933 King Kong was produced using models to create the various monsters (fig 19). In 1953 George Pal's War of the Worlds broke the boundaries of effects by laboriously drawing in every flame separately (fig 20). In 1956 Disney created the terrifying invisible creature in

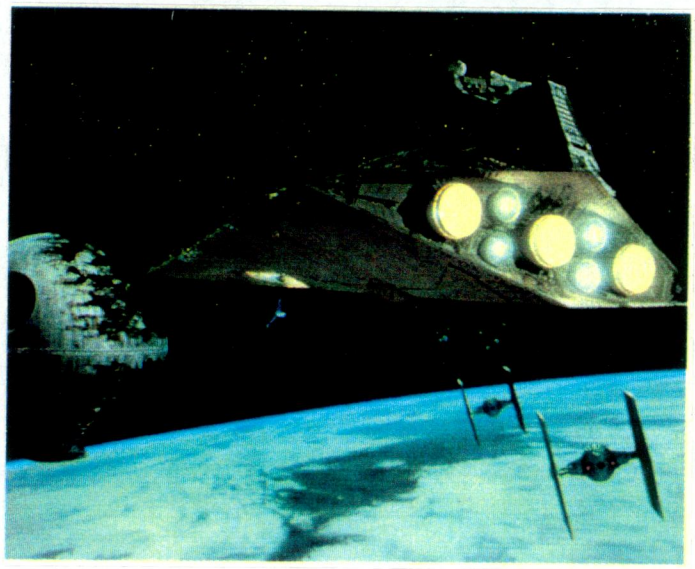


Fig. 22: Star Wars.

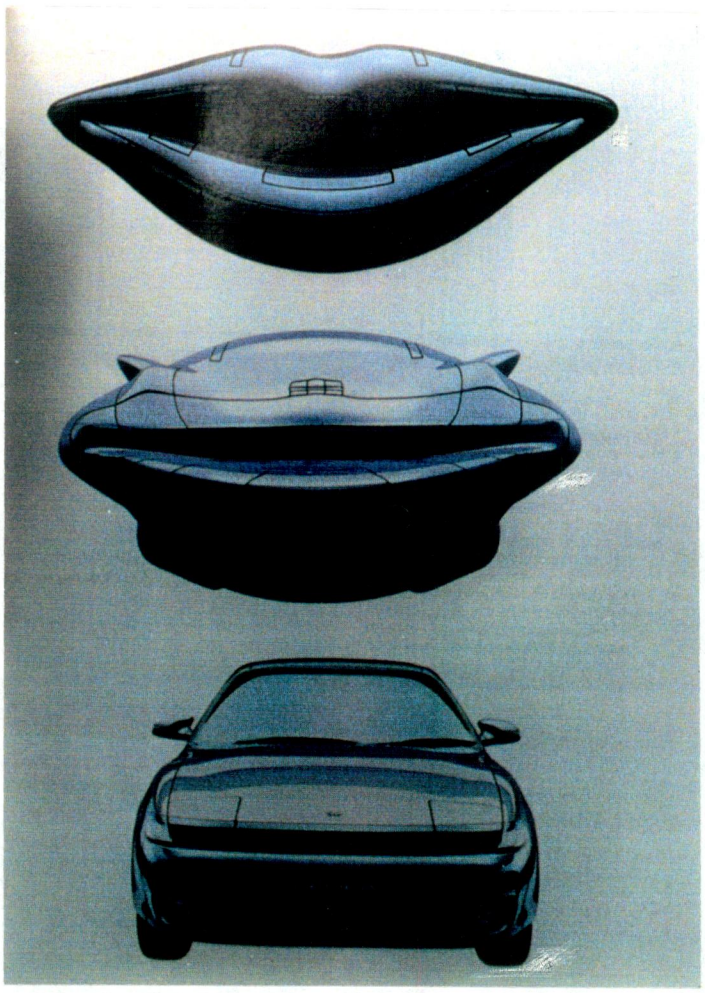


Fig. 23: It was the software that was developed for the 'Terminator 2' that was used for this Japanese commercial in which through morphing a pair of woman's lips turn into a Celica.

Forbidden Planet (fig 21). But it was not until 1977 that Industrial light and Magic (a special effects company) revolutionised the world of effects with their work on Star Wars. Director George Lucas built an effects team to bring his dream to reality, the team latter formed as I.L.M. (industrial light & Magic). (Harrell, January, '93 P. 12). The team helped audiences around the world believe that the Death Star and the Star fighters were for real. They created spaceships, creatures backdrops and other gimmickry that helped the film Star Wars to become the success it was (fig 22) I.L.M. has now expanded and as well as working within the film industry they now create amusement park rides, museum exhibits and educational products. But it is also interesting to note that in the past couple of years almost a quarter of it's production has been devoted to commercials. For example, one of their most recent advertising commercials was for the Japanese Celica in which a pair of shiny, metallic woman's lips, suspended in space, suddenly turns into the celica itself (fig 23). (Dooley, May - June 1992, Pp. 74 - 83). Tom Kennedy, who heads the department for commercials, believes that because of a commercial's tight schedule, they don't allow much opportunity to push the technology forward and it is the development within the film industry that advertisers mimic. I agree with this view and I believe that as a result of such technical advancement within the effects business for films that film influences advertising to a large extent. I also believe that

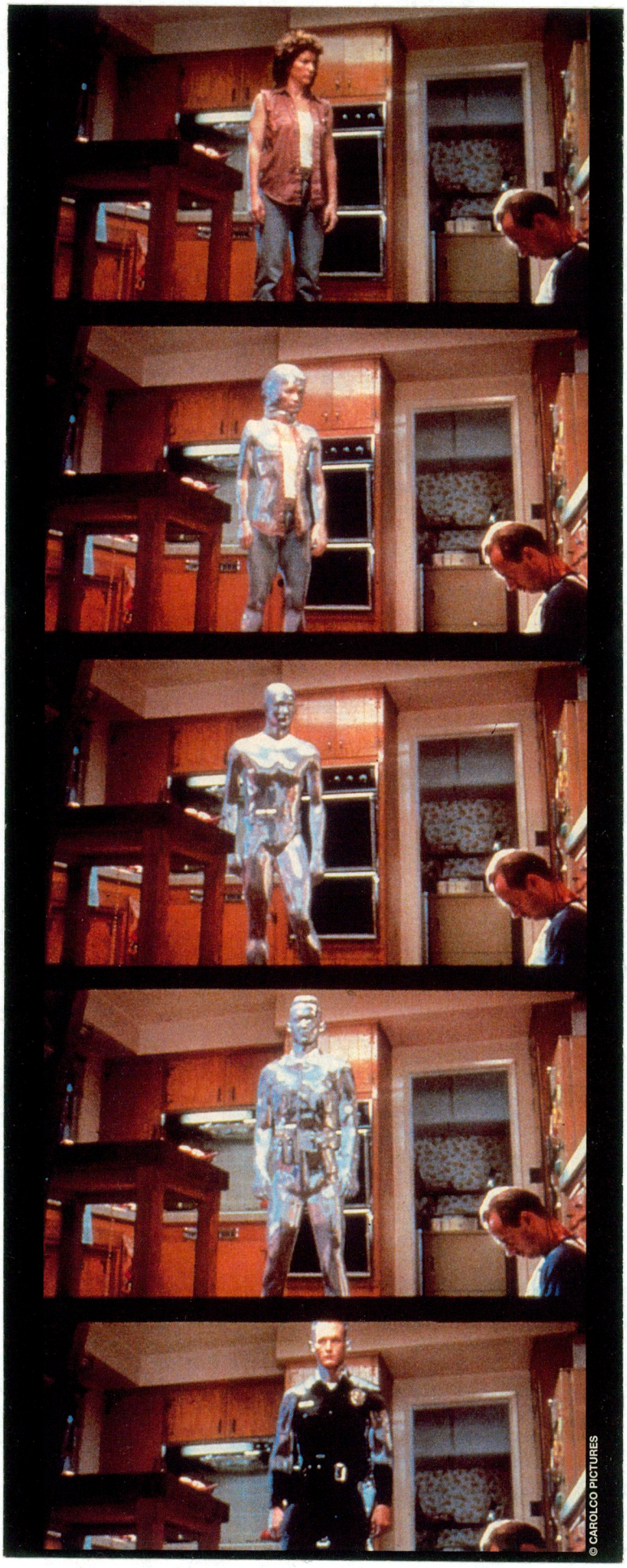


Fig. 24: Terminator 2.

advertisers imitate the world of cinematography and therefore demand that animators produce work they feel are following current trends within the film industry. Again this shows us how animation is a slave to fashion. The Celica advertisement uses a technique known as 'morphing' which was created for Terminator 2.

Terminator 2 was of course a blockbuster film for 1992. I.L.M. were to a large extent responsible for it's success by creating the incredible technique of morphing. This method of computer animation enabled the machine called T-1000 to shape change, convincingly (fig 24) I.L.M. developed their technology to such a high standard that they had to attend to every detail on T-1000. For example, the machine's body was covered with a chrome skin which has to reflect the world around it. In order to solve this problem the animators designed a programme in which the computer follows a path of light and takes the image through a series of reflections and distortions (fig 25). The effects in the finished film were so successful that it took an Oscar for Best Special Effects. (Harrell, January '93 Pp. 7-9).

I.L.M. have produced a number of films that employ the use of computer animation such s Star Wars (fig 22) Who Framed Roger Rabbit? (fig 15) The Abyss (fig 26) and last year's Terminator 2 (fig 27).

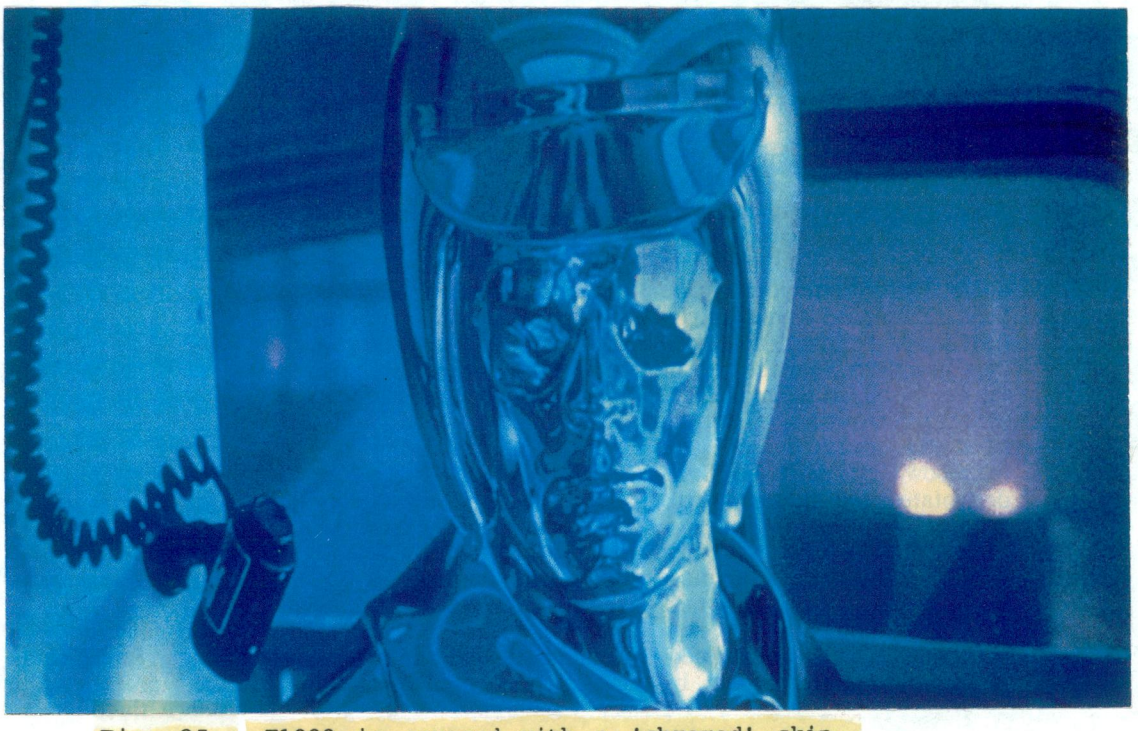


Fig. 25: T1000 is covered with a 'chromed' skin, which has to reflect the world around it. The animators used a programme known as 'Ray Tracing' , the computer follows the path light and introduces reflections and distortions.

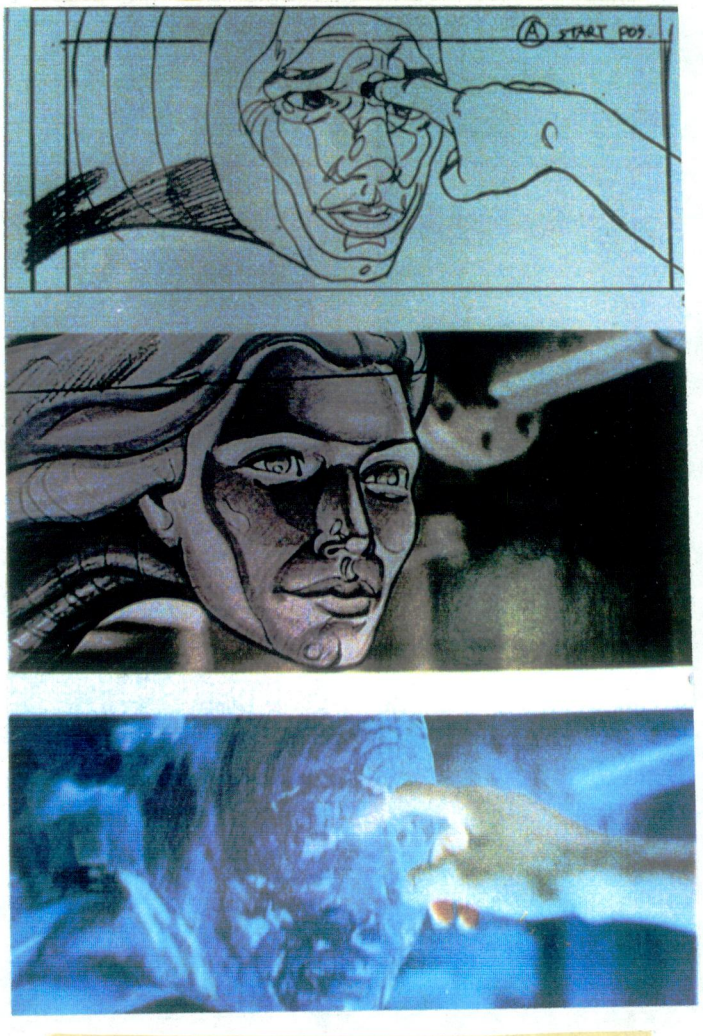


Fig. 26: The fist stage in storyboard drawings for the film 'The Abyss'.

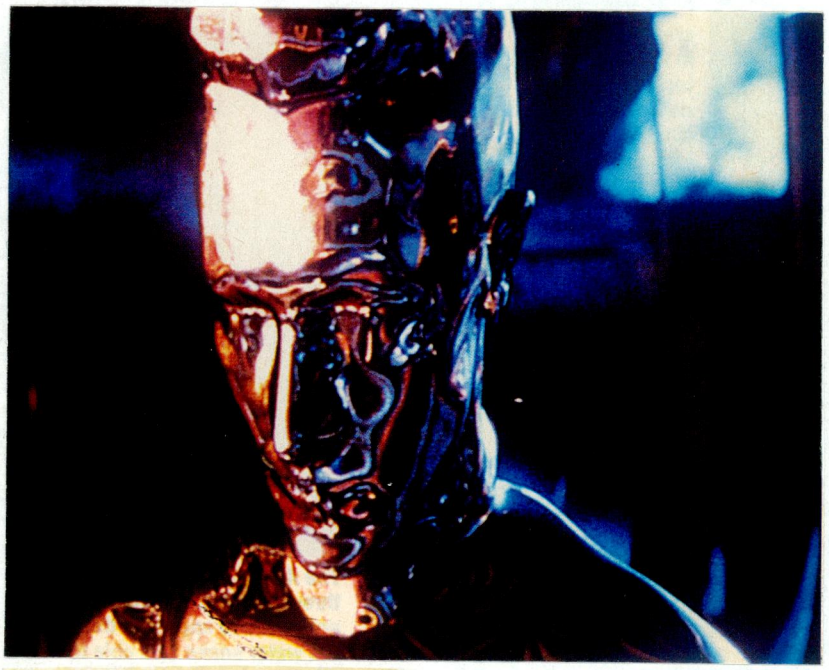


Fig. 27: Terminator 2.

> "I don't want to say traditional effects are useless, but their time has had it, in a way. With the next generation of what the viewer will expect in terms of reality, natural effects will not work. Computer animation is the only way to do it - We don't want to get caught with our drawers down. In order not to stagnate in this industry, we have to keep toping ourselves - technology will eventually extend into doing synthetic human beings."
> (Dooley, May - June, Pp. 74 - 83).

It cannot be denied that special effects in science fiction films have reached a new level of maturity and without computer animation this would not have been possible. It is due to the insight of companies such as I.L.M. and many more that computer animation has become so technically advanced, and that computer effects can add such extra realism to films.

Summary and Conclusion:

Within this thesis I have examined the development of animation over the past decade or so, with particular reference to its relationship with the advertising industry. I have shown how both industries have influenced the other and as a result of this have experienced changes that have been both successful and damaging. In chapter one I discussed how animation was becoming more popular with industries such as advertising, television and film. I found that although these industries have presented animators with the opportunity to show their work to large audiences, they have also harmed animation on a wider scale. I found that because of this sudden demand for animation, animators are forced to produce work quickly. Because of these time limits a lot of the work has been of a poor quality and also lacks in concept and content. Because the advertiser will show the sequence hundreds of times it devalues the finished work. I also feel that because advertisers constantly search for the next fashionable and stylistic approach from animators, that animation on the whole becomes a slave to fashion and current trends . It is because of the add industries constant hunt to find young animators that have the ability to meet the

demands of current trends and fashions that Designer

Animation has become a problem to animation today.

In Chapter two I have explored the reasons why advertisers have turned to animation. I discovered the main attraction that animation holds for advertisers are (a) animation can make a product do or become anything, (b) it is cost efficient. I also discussed a number of animators that have produced work for the advertising industry. I found that animators such as Will Vinton from Claymations and Nick Park (Aardman Animation), have produced work of a very high standard for the add industry and have won a number of awards for doing so. I have discussed advertising's effects on the art of traditional animation. It is my belief that the Advertiser is merely concerned with selling a product, and if glossy visuals of little content are all that are needed to do so we cannot expect the advertiser to concern themselves with animation of a more artistic nature. However I do feel that this is our problem and perhaps by creating more animation courses in our colleges we can teach young animators traditional techniques that can be combined with more sophisticated and modern methods.

Within chapter three I have examined computers and their effects on the animation industry. I have provided a brief history of the development of computer animation and although it is a relatively new medium it is constantly developing, and animators today are becoming

ever more technically efficient. I have discussed computer animation within special effects for the film industry. By observing these effects we can see how animators are finding it possible to create whatever they want. I have discussed I.L.M. (Industrial Light and Magic) and the films they have produced in the past from Star Wars to Terminator 2. I have also presented the argument that traditional animators feel that computer animators are nothing more than glorified operators. I believe that increased technology and improved techniques do not equal automatic success in producing an animated sequence. I found that there are a lot of computer animators who are more interested in exploring technology than creating work of a more artistic nature. However I have learnt that one of the main problems with the development of computer animation is that it is being used to support other methods of animation and in doing so must be disguised. I feel that if computer animators concentrated on developing their medium in terms of ideas and concept and stop trying to disguise the fact that computers have been used, they could gain respect and critical recognition within the art world. I feel that animation as an art form is being split, between those using traditional techniques and those developing new ones. The danger is that this gap will increase. With the increased efficiency and popularity, of the newer mediums, it seems likely that they alone will be the beneficiaries of animations new popularity, leaving the older traditional techniques neglected and bankrupt.

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