

visual communication

special project . . . . (march '98)

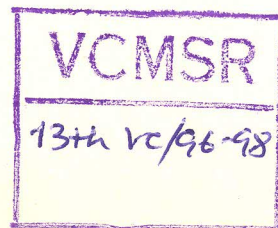
# *the living colours*

animation with paint packages



a project by kaladhar bapu (96625011)

guide prof. ravi poovaiah



# approval sheet . . . .

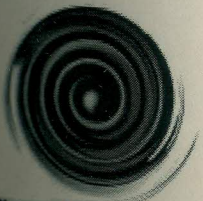
This Visual Communication Special project entitled "THE LIVING COLOURS" -animation with paint packages, is hereby approved as partial fulfilment for the degree of Master of Design.

guide.

internal examiner -1

internal examiner -2

*Muni*



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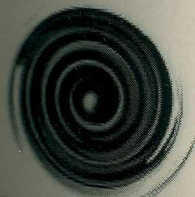
## acknowledgement . . . .

At the outset I would like to thank my guide Prof. Ravi Poovaih for his suggestions and valuable guidance. His guidance helped me to understand my subject better and find my own way through the project.

I would like to thank Prof. N. Sadhu for his technical support.

The Jr. V. C students particularly Raja, Shyam Sundar sat with me during crunch situations. I am thankful for their timely help.

My classmates one and all helped me at various stages of the project. I am indebted to them and look forward to their continued support.



## introduction . . . .

In enormous variety of software packages for designers and other creative professionals are available today. These range from small paint packages such as Paint brush that is provided as part of any standard windows setup to more independent commercial packages such as Corel Draw; And from more advanced paint softwares such as Adobe Photoshop to state of the art 3D rendering and animation packages such as Alias. Max and the like. The aim of this project is to fully explore and apply design principles to any one of the mentioned softwares, my choice being paint packages such as Photoshop, Fractal Design Painter and Power Goo. The packages mentioned herein can be broadly classified into two groups namely paint packages and animation packages.

The versatility of animation softwares is well known and so the possibility of using features of paint packages for creating animations etc. is being studied in my special project. Hence I have chosen to work with Photoshop and Fractal Design Painter with all the Plug-Ins that are compatible with these packages.



## objectives . . . . .

### Object Creation:

The first objective is to explore the media by means of creating objects using drawing tools, colour pallets etc. There the working and application of the drawing tools can be understood and explored. Starting from a simple form, eventually resulting in a complex form through a series of subtle transformations. Thus, we have an animation.

### Object Transformation:

In this objective the versatility of the package can be explored by use of more complex image manipulation techniques on existing images such as illustrations, photographs etc. For example the mood in a photograph can easily be seen as changes gradually by modifying its intrinsic characteristics such as colour balance, brightness/contrast, hue/saturation, blur etc.

### Time element Animation:

This objective is a combination of above and aims at creating simple time element animations by a series of paint frames each containing varying images. This can easily be achieved in Paint packages by use of third party plugins such as the filters in Kpt etc. This method forms the basic of any animation package but can still be achieved by use of all tools and effects provided within Photoshop.





## colour . . . . .

My aim of this project is to create simple but effective time bound animations with the main theme being 'COLOUR' can be in the realistic or in abstract methods of animations by use of a variety of tools provided in Paint Packages with emphasis on the manipulation of colour palette and application of filters.



## packages . . . .

### ILLUSTRATION

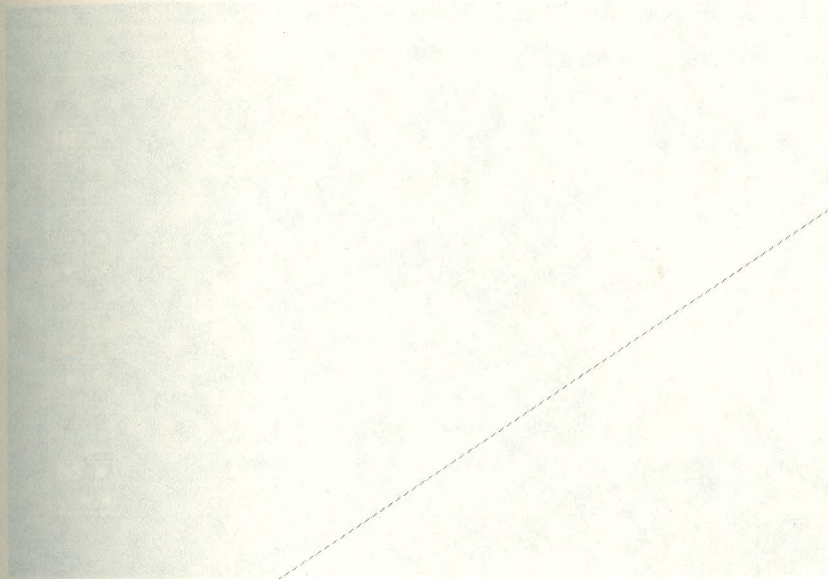
Adobe Illustrator  
Micro Grafix Illustrator  
Corel Draw  
Free Hand

### PAINT

Paint Brush  
Photo Paint  
Photo Shop  
Micro Grafix Picture Publisher  
Power Goo

### ANIMATION

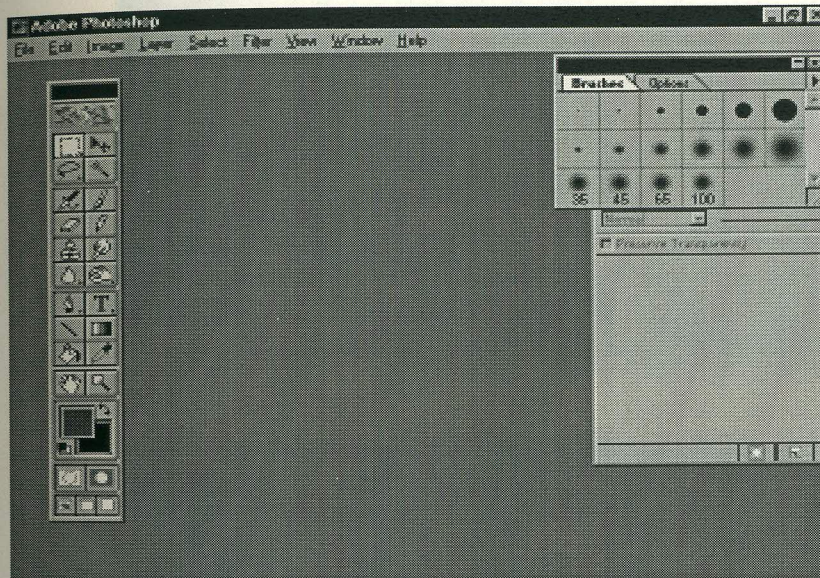
Animator Pro  
Animator Studio  
Ani Stand  
3D Studio 4  
3DS Max  
Alias  
Adobe Premier  
Flash



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# photoshop . . . .

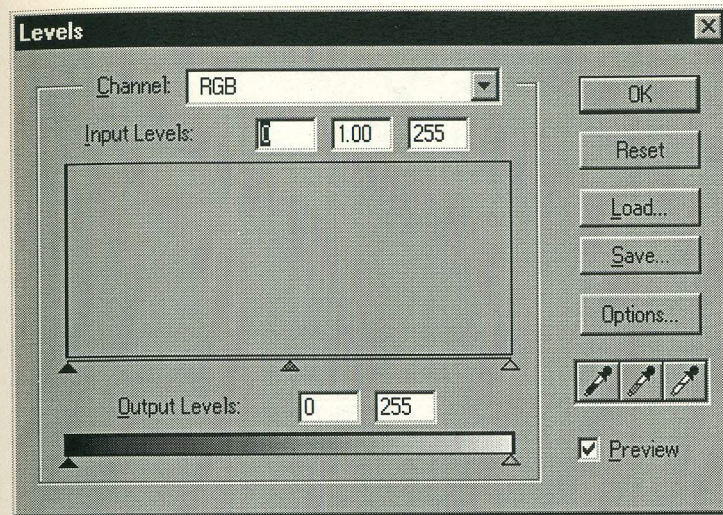


Photoshop, an image editing software that combines a full range of painting, editing, and image composition tools; sophisticated selection tools; and methods for adjusting gray levels and color in continuous- tone images. Whether you're a graphic artist, illustrator, photographer, video paintbox artist, retoucher, or prepress professional working in a service bureau, you'll benefit from the power and versatility of this software.

As an electronic darkroom, Adobe Photoshop lets you transform scanned photographs, slides and original artworks in many ways, for example by cropping , rotating and resizing an image and by creating special effects using filters that range in effect from blurring to mosaics. As a post production tool Adobe photoshop lets you edit images and produce high quality colour separation and half tones at lower costs than previously possible. The printing options within Adobe photoshop let you precisely adjust your output to produce high quality camera ready artwork and film



# photoshop . . . .



These are some of the effects in photoshop and by changing these parameters gradually we can get amazing animation. we can find these effects under

**image> adjust>**

levels

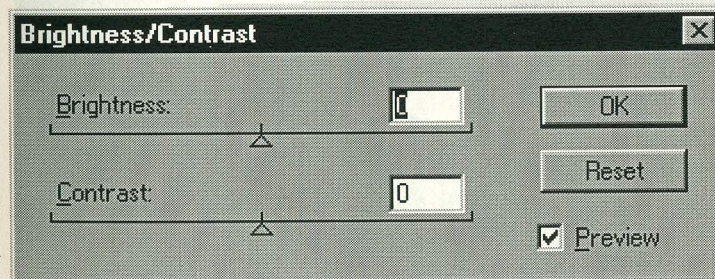
auto levels

curves

colour balance

brightness/ contrast

hue/ saturation



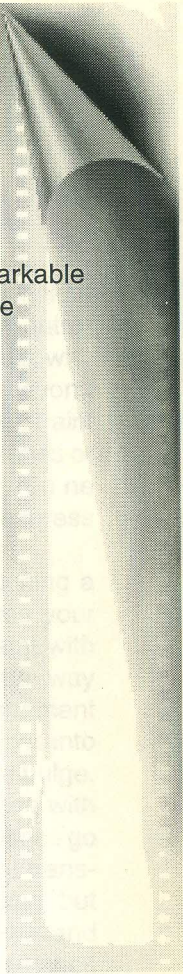
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# photoshop . . . .

Watercolor...	Ctrl+/	Other	▶
Neon Glow...	Ctrl+	Sketch	▶
Orientation	▶	Toadies	▶
		Visual Manipulation	▶
Fill..	Ctrl+F		
Tonal Control	▶		
Surface Control	▶		
Focus	▶		
Esoterica	▶		
Objects	▶		
Alf's Power Toys	▶		
Alien Skin	▶		
Artistic	▶		
Brush Strokes	▶		
Corrective	▶		
CPK Designs	▶		
Digimarc	▶		
Filter Factory Gallery A	▶		
Filter Factory Gallery B	▶		
Filter Factory Gallery C	▶		
Filter Factory Gallery D	▶		
Greg's Factory Output	▶		
Greg's Factory Output Vol. II	▶		
KPT 3.0	▶		
KPT Convolver	▶		
Noise	▶		

By the use of these Photoshop filters remarkable changes can be brought about in an image which is a powerful aid to animation.



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# painter . . . .

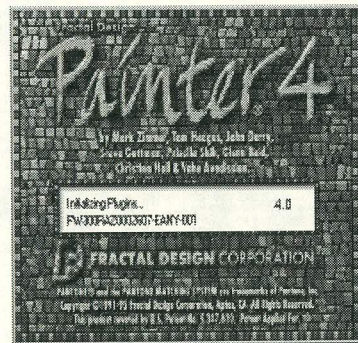
## Bursting with Brushes

The heart of Painter is its unique ability to simulate traditional tools and techniques. Painter 5 introduces the next generation of Natural-Media with an extensible, open architecture that goes beyond the traditional to create astounding new looks. Paint with texture, noise, fire, glow; remove scratches or clone images in magical ways. With over 100 new brushes, Painter 5 gives you the ability to express your creativity in any way you can imagine.

The powerful Photo Brushes make retouching a snap. The Scratch Remover Brush makes your dirty scans look great. And once you paint with the Hue Brush you'll realize there's no better way to re-color and tint your photographs. Experiment and play with the Gooley Brushes, turn images into liquid pools -- stretch, pinch, pull, twist and bulge. Painting with Gooley brushes is like working with silly putty. The amazing Super-Cloners brushes go beyond rubber-stamping. Not only can you transform an image into a hand-rendered painting, but the Super-Cloners let you scale, twist, skew and mirror at the same time. The Super F/X brushes paint with fire and neon, adding glow to your canvases. And the new Layer Brushes let you create and paint on transparent layers, just like painting on a sheet of glass that overlays your canvas.

## Dynamic Plug-in Floaters

Painter was the first image-editing program to offer multiple floating selections. Now Painter 5 delivers Dynamic Plug-in Floaters. Unlike traditional image layers that let you collage static image elements, Dynamic Plug-in Floater perform image



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## painter . . . . .

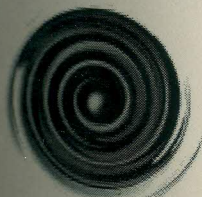
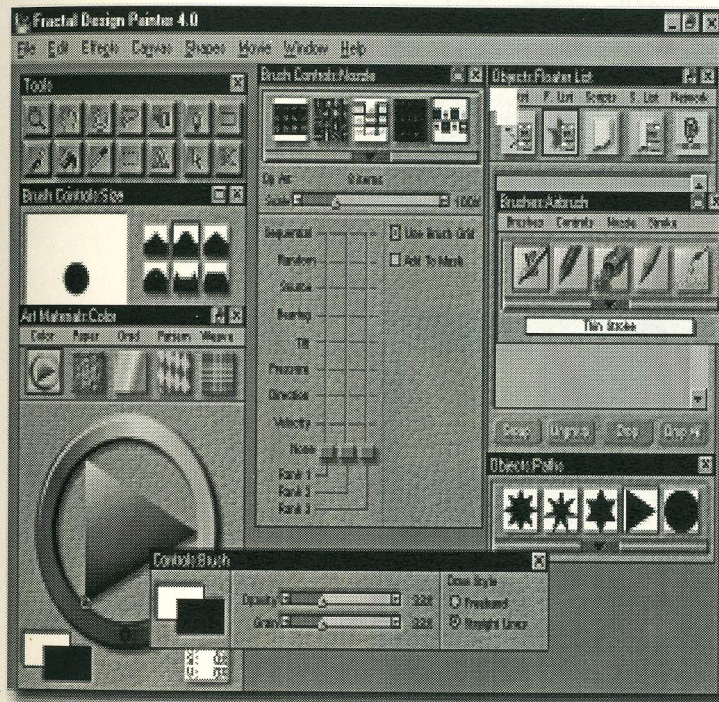
processing effects (like burning or tearing) that update automatically. They can also create new objects like a liquid metal painting layer. Painter's amazing Dynamic Floaters can be moved, changed and reapplied without altering the original source material.

The Liquid Metal Dynamic Plug-in Floater lets you work with metallic paint that shines and reflects the environment. Turn off the reflection mapping, and the layer looks like pools of water that refract the canvas image. Each drop is an object so it can be moved independently. And each drop flows and clings to each other, with surface tension, like real liquid. Imagine painting with Mercury and you'll get the idea of the Liquid Metal Dynamic Floater. Pure magic.

Glass Distortion and Kaleidoscope create floating lenses that distort underlying layers. Move the lens to a new area of the canvas and it updates automatically -- just like moving a piece of glass over your painting.

Burn and Tear let you singe or tear the edge of a floater. Just dial in the amount you want -- from a little to a lot -- and Painter calculates the effect. It never destroys the original. At any time you can re-dial the value to change the look.

Bevel World gives depth and dimension to a floating object. Use Bevel World to create buttons for web pages or multimedia design. Turn flat photographs into framed artwork. You can adjust and refine the bevel until the look is just right, or remove it to return to your original floater.



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painter . . . .



There is even a collection of Dynamic Floaters that perform the functions of Photoshop (TM) 4's Adjustment Layers. Brightness/Contrast, Posterize and Equalize create floating lenses that transform underlying layers. Use these Dynamic Floaters for making image adjustments that won't alter your original artwork.

#### Tear-off Tools

No two artists work in the same way. Painter 5 lets you customize your palettes to suit your personal style. Brushes, Art Materials and menu items can be torn-off and placed on custom palettes. Build palettes that hold just the tools you use most frequently, or create custom palettes for a particular project. With custom palettes you'll work more

comfortably and efficiently.

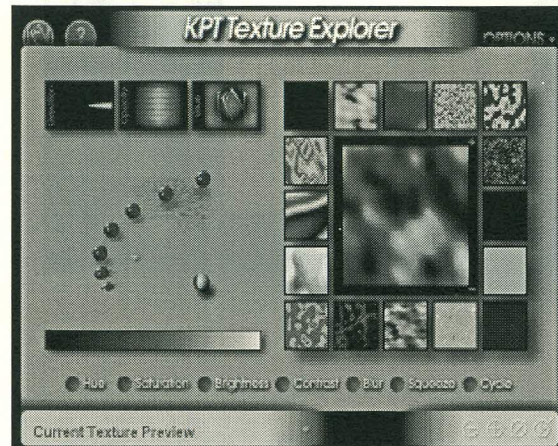
Painter 5 sports many other interface and usability improvements. A new Crop tool, redesigned Magic Wand and improved Paint Bucket make day to day editing easier. Customizable function keys, keyboard entry of slider values, the ability to save and restore palette locations all make working with Painter easier, faster and more accurate.

#### Powerful Image Effects

Of course Painter supports plug-in effects like MetaTools KPT. In Painter 5 you will find a 3D Image Hose effect that places Image Hose elements around a three-dimensional sphere. The Pop-Art effect renders your image in bold colors and half-tone dots. And a variety of realistic Camera Blur effects turn those flat photographs into dynamic shots with motion and depth.



## kai's power tool . . . .



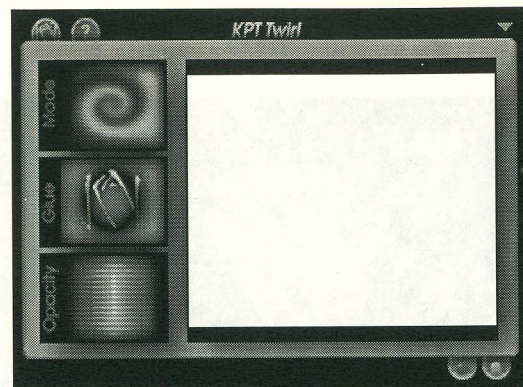
### Infinite "3D" Textures

Unlike any other texture engine on the graphics market, KPT Texture Explorer lets you zoom and pan infinitely through your textures, as well as enhance them with built-in color convolution control. And the revolutionary design to the interface makes this and the rest of the tools as easy as they are powerful.

While many texture engines, and many kernel-based third-party filters exist for the desktop market, nobody has tried to come up with a solution for complex colorblends in image-editing. With the KPT Gradient Designer, complex blends along with a host of other options mean effects that aren't simply shortcuts to traditional methods. Rather, you can create images not possible with any other tools.

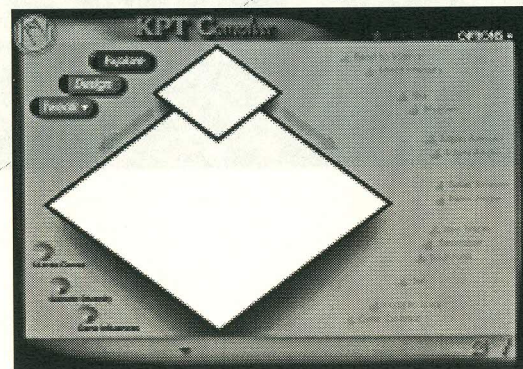


## kai's power tool . . . .



### Draggable KPT Lens f/x

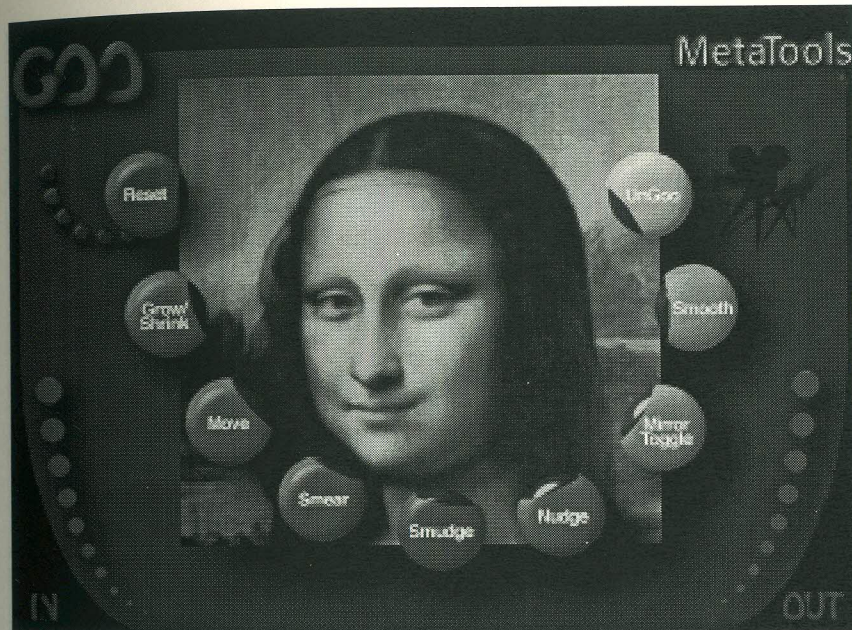
While the effects with KPT Lens f/x might be simple in their native form (colored noise or smudging), the range of features with Kai's Power Tools, including the draggable "virtual loupe" makes these extensions more versatile than standard kernel-based filters. With settings such as intensity, opacity and apply modes, the KPT Lens f/x functions like a miniature host application.



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## power goo . . . .



Realtime Selective Goo Brushes and Global Effects

Smudge, Smear, Nudge and UnGoo funny faces right before your eyes with creative tools that can keep pace with your imagination. Choose from 9 Goo brushes and 9 global Goo effects to manipulate images and your personal photos as if they were liquid on your screen.

Variable Goo Output Resolutions

Your Goo'd images can be saved and output in a variety of sizes. The only limit on their size is the amount of RAM and hard drive space available. You can even increase spatial output resolution to create a poster, while ensuring image quality in that larger format. The secret is Kai's Power Goo's advanced mathematical algorithms.

Realtime Bi-Directional Cloning in the Fusion Room

Simple-to-use, yet sophisticated tools allow you to combine features of one image with those of another in Kai's Power Goo's Fusion Room. Quickly fuse the ears of Ross Perot and the nose of Richard Nixon onto the face of your boss. Goorillas and donkeyphants run wild in the Fusion Room. Eat your heart out, Darwin!



the living colours



power goo . . . .

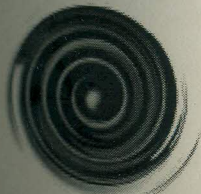


#### Flexible Keyframe Palette and Editor

Animate your Goo'd still images easily with Goo's elegant Keyframe Palette and Keyframe Editor. Within seconds, you can become the director of your own live action "Goovies" or QuickTime/AVI movies.

Goo images from picture files, digital cameras, video capture devices, scanners, PhotoCDs or stock photography like Power Photos. Kai's Power Goo allows you to import the following image formats directly into Goo: BMP (PC), PICT (Macintosh), and Photoshop, TIFF and PhotoCD (PC & Macintosh). Kai's Power Goo allows you to export the following image formats: BMP (PC), PICT (Macintosh), and Photoshop (PC & Macintosh). You can also save movies in AVI (PC) and

These valuable tools help ensure that you will become well acquainted with the power and flexibility of Kai's Power Goo. You will become empowered to get the most out of Kai's Power Goo straight out of the box. In no time, you will be having fun while truly exploring your creativity.



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## **Animation with Paint Packages**

### **Animation once again?**

We always assume that if can move whatever we create it is animation. But it is always not true. Animation is a dynamic medium. Dynamic implies if we are able to manipulate whatever we create (it could be a cartoon, hand drawn charcoal sketch, clay, pebbles, sand... what not) in space and time. There are really no restrictions and strong guidelines for animation. Period. So how you create with what you create and how you animate/manipulate/move the creation is your originality. Probably a new technique in animation.

Using computers:

We have packages for animation like Ani pro, Ani studio, Ani mo etc. Normally, animation cels are coloured by using paint packages like Photoshop; Painter ...etc. and then animated in animation packages. Some animation packages offer in built paint packages and they do not require external paint packages. So let's toy with this idea what if paint packages it is used for animation? Could it not be an another new technique in the process of animation?

### **Paint packages:**

Paint packages mainly used for image manipulation and graphic creation. They offer different layers to work, different filters and extensive third party plug-ins. So there is a great potentiality in the package to create subsequent images to be animated.

### **The packages used in the project:**

Graphic or Paint packages:

#### *Adobe Photoshop 4.0*

It offers different individual working layers, filters, image manipulation controls (brightness, contrast, curves etc.),



third party plug- in's etc.

Fractal Design Painter 4 and 5

It offers internal animation facility. But it doesn't have time manipulation function. It offers almost similar functions as photoshop offers.

Power Goo.

It is a sort of animation package and graphic package. But we can manipulate only one image at a time and there is only chance for eight manipulated cells. Manipulation is done on image itself by changing, smudging, pulling, mixing etc.

**Compiling packages used:**

Gif con

It is an image-compiling package, mostly used for web. It accepts gif-formatted images only. There is a scope for time adjustments.

Adobe premier 4.0

It offers editing, compiling, capturing facilities and movie making. We'll get a.v.i , quick time formats.

Techniques used:

1. Morphing
2. Fade out and fade in
3. Form creation
4. Hue manipulation
5. Contrast and brightness manipulation
6. Surface texture
7. Video captured cels
8. Wave technique
9. Twirl technique
10. Glass technique
11. Posterise technique
12. Blur technique
13. Water colour



14. Crayon
15. Smear, smudge and move

### **The Process:**

Animation is done by using eight to a maximum of ten cells interwoven by a theme. These frames are then sequenced in time by using compiling packages.

Some animation is done by using a single frame which is subsequently manipulated. Some animations are done by taking two different images and then carefully morphed. Using different images with in a theme creates some.

And still few others are done by capturing cel after cel from a video output of a sequence. Then the cels are treated and manipulated by using filters. Once the image manipulation is over these cels are taken to compiling packages and animated. The time frame is fifteen frames per second. Some animations are looped gif animations and some are quick time movies.

### **Video capturing:**

Some animations are created by video captured cels. National award winning film Dasi and a video on school children are selected for capturing. The chosen sequence is captured frame after frame in a regular interval of time by using Adobe premier. Those bmps are taken in to Photo shop for colour balancing and applied watercolor filter. Then these manipulated cells are taken into Gif con and looped.

Observations:

1. Can create amazing animations.  
Can create animations beyond the imagination because of colours and the way they blend.
2. Can work on layers, so we'll get powerful background



transformations.

By changing layers easily for different cels and using opacity option this is possible.

3. Third party plug- in s can be used.

Third party plug- in s like Alien skin is offering amazing effects. By using bevel, drop shadow, 3- d effects ...etc. we can create beautiful effects.

4. Lot of special effects can be created with out much effort.

Because we are handling individual cels there is a scope for applying different effect wherever you want. Selecting the specific area and just apply the required effect.

5. Un- ending animation can be created by loop.

By choosing a starboard such way that there is always continuity or journey, we will get an illusion of un- ending. This is possible by keeping the animation in loop by using gif con.

6. If it is for web cannot be created more than 160x140- pixel animation.

If it is more than 160x140, animation will take more memory and take more time to down load.

7. Can work with extensive details, because of less number of cells.

We can make every object as a single entity. So there is a wide scope to manipulate each and every individual cel patiently.

8. This is very useful for quick animations.

Because of less number of cels and easy manipulation by helpful filters it is possible.

9. You don't have to be skilled animator but visualizing capacity is needed.

Because we are using power of paint packages, we are mainly depending on image manipulation. So there is not scope for character design or skilled drawings.

10. There is no much control on time.

Maximum of 10 cells we are using in animation. So there is not much control on speed duration or play duration. Paint packages won't offer any time function.

11. Difficult to create character animation.

Even you could able to draw a character by using



mouse or any digital tablet, it is very difficult to manipulate the previous cell with out loosing the similarity.

12. Mostly have to depend on package capabilities rather than our skills.

We cannot anticipate what effect we are going to get by using a filter for a different image. It gives different kinds of effects for different coloured images.

13. There will not be any accuracy or gradual changing in animation, because of individual hand manipulation.

Here is no control over subsequent images because due to less number of cells we will have to change the manipulation value randomly.

14. We can create special effects for live clippings also.

By capturing cells from video, we can give special effects to those live clips.