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Up

A Graduate Thesis Animation by

Suruchi Pahwa and Hardeep Kharbanda

Written by Suruchi Pahwa

Stephanie Maxwell

Stephanie Maxwell(**Chair**)
Associate Professor

Malcolm Spaul

Malcolm Spaul
Professor

Lorelei Pepi

Lorelei Pepi
Assistant Professor

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Name of author: SURUCHI PAHWA

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Acknowledgements

Coming to the US to do my Masters was a big step for me. My parents give me this opportunity to explore and I am so thankful to them! My sister, Rishi and Syed were always by my side supporting me and helping me get thru. Sometimes work can get frustrating and everybody stood by me patiently making me move forward towards my goal of completion. Sunny, my great partner in work made work a lot more fun as I always had so much to learn from him.

Stephanie was a big source of positivity for me. She always helped me a lot. She critiqued my work, sat with me for hours just telling me what might work for the film and what might not, and its because of her that I have come such a long way in my creativity.

Skip was amazing too. He was my guide for my first film and I can never forget the amount he helped me then.

I'd also like to thank Malcolm and Lorelei for their inputs and critique.

Mary Barnard the sweetest and the kindest person I have ever met. Always helped me with all my problems. I needed Hot Chocolate, cause of the sleepless nights and she always had them ready. I can never forget Mary's kindness!

Thank You Everyone!

Contents

Acknowledgements.....	2
People who referred to this report.....	3
FAME: A FOUR-LETTER WORD?.....	5
ZAZ: The making of a star.....	6
Humble Beginnings.....	6
Designed to Fail?.....	6
‘I AM NOT TWO-DIMENSIONAL’: Zaz.....	7
A Stichin’ Time.....	7
IS ZAZ A SOFTIE?.....	8
Zaz's world.....	9
What’s that behind Zaz?.....	9
Stepping through color.....	11
Moving up.....	13
Should I Stay or should I Go?.....	13
On shaky ground.....	14
All that Zazzzz.....	15
Encore for Amanda.....	17
Let’s give Zaz some credit.....	18
2’s company.....	20
Curtains.....	21
Appendix A: The Proposal.....	22
S t o r y.....	24
S y n o p s i s.....	24
Appendix B: A Life in Pictures.....	31

FAME: A FOUR-LETTER WORD?

Obsessive student pens a new tale in Re-Proposal

The way this work came about is interesting, and we feel it necessary that the reader know the story behind it before getting into the how and why of its parts.

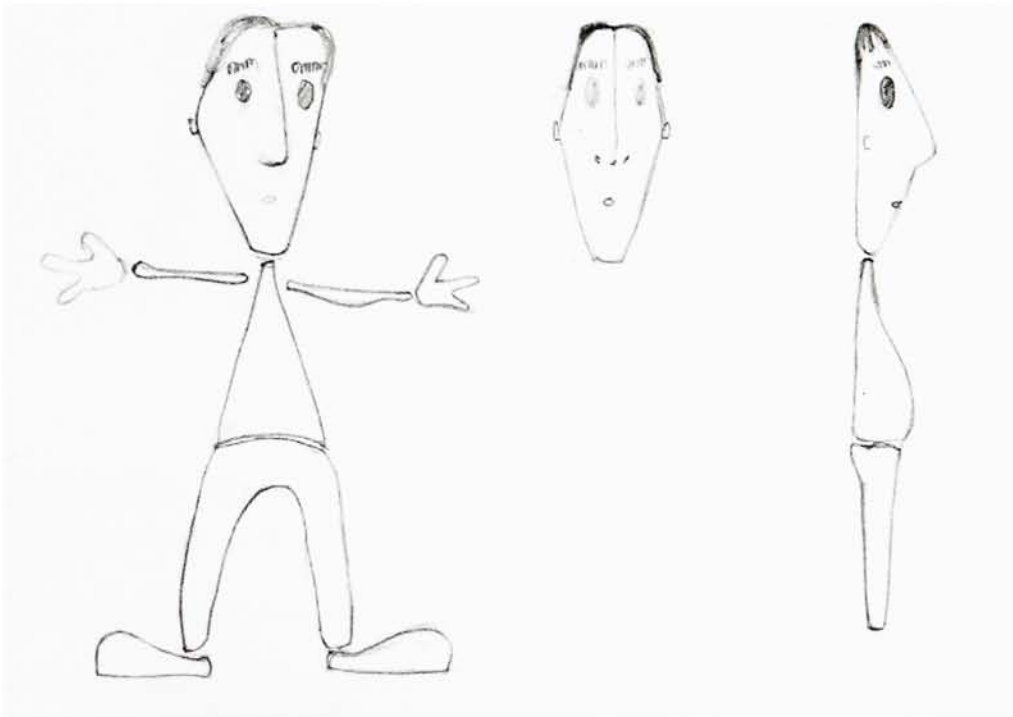
In the beginning there were two different films: “Two Many” was Sunny’s thesis idea about a guy torn between his two sides, which was approved by the thesis proposal review committee on the second attempt, and “2”, Suchi’s idea of a film about relationships, played out through the exchanges between a man and a ball. Over the summer of 2003, Suchi began to lose interest in the story of “2”. Obsessive as she is, she came up with a host of new ideas and re-proposed the best one of them, a work about fame and the harshness of the limelight, tentatively called “Celeb”. It was a much better story, and was approved by the review committee. We each began working on our individual thesis projects, and as we worked side by side, we started bouncing ideas off each other. Each of our works started growing and becoming bigger and better, but we were having so much fun contributing to each other’s works, that it reminded us of our collaborative animated work, “One by Two”. We seriously felt that if we teamed up on our thesis, it would be a knockout movie. We decided to give it a shot and re-propose – again. This happened to be the third time in front of the faculty for both of us. The proposal was passed, if not somewhat reluctantly, but because “One by Two” had done so well. The faculty made a decision to trust that our project would likewise probably be a success. “Two Many” was abandoned, and “Celeb” went full steam ahead, eventually ending up as – “Up”!

ZAZ: The making of a star

Humble Beginnings

In keeping with the central story idea about the dark side of fame and celebrity, the protagonist Zaz was conceived as a simple, naive character – the kind who leads a dull, mundane existence with no true excitement. This kind of personality allowed for a more dramatic character arc, with newfound success transforming Zaz into an arrogant, attention-seeking headliner. When Zaz the star is humbled and debased at the end and dragged even lower than when he began, the impact is even stronger.

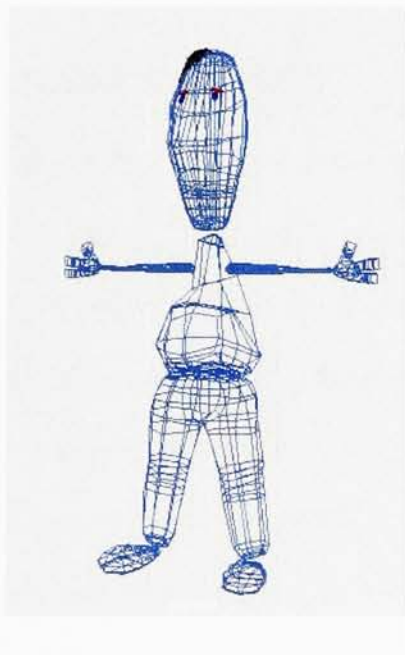
Designed to Fail?



To effectively bring out and exaggerate Zaz's simplicity, I imagined him as a stuffed cloth toy - soft, squishy and malleable, with a round cushiony tummy one just loves to squeeze.

His small, toothless mouth and button-like eyes give him a child-like nature and attitude. His limbs are disjointed from his body, creating a looseness of movement and contributing to his seeming naiveté and innocence. Zaz really looks like the perfect target for a conspiracy that will bend and manipulate him and finally destroy him.

'I AM NOT TWO-DIMENSIONAL': Zaz



Since our main strength and focus is the animation, the modeling technique was chosen to aid the animation. I modeled Zaz using Connect Poly Shape (CPS), a plug-in for Maya. CPS lets the animator work with a low-resolution mesh of the character, that responds quickly to any inputs and transforms. While rendering, it allows the user to increase the resolution to any level desired. While Maya's subdivision surfaces also do this, CPS is a lot more intuitive, user-friendly and predictable.

A Stichen' Time

To complete the stuffed toy look, I added details like stitches where one patch of 'cloth' met the other. When texture and bump maps failed to give the impression of stitches, I ended up modeling them as grooves in the head and body. Though this meant adding more points and making the model a bit heavier, it paid off. In the final model, there are stitches around the outer edge of Zaz's oblong head and around the 'O' of his mouth, and there are creases at the corners where stitches running in two different directions meet!

To make Zaz look more natural and aged, I varied the thickness of the stitch, and pushed the surface around the seam outwards to add a puffiness to complete the stuffed toy look. The broad surfaces still looked too hard, so I had to subtly push and pull points all over the head and body to create a lumpy softness of a well-used stuffed toy. I can safely say I spent as much – or more – time adding these subtle details than when modeling the whole character before that!

IS ZAZ A SOFTIE?

The stuffed toy look called for a surface material that looked like cloth. I found and customized a velvet shader that looked soft and caught the light like velvet does. I picked a light purple base color for Zaz as I felt it went with his personality. Some parts of his body – like the underside of his floating torso, or the underside of his legs and soles of his feet – are a darker purple, to add variety. A flat color, of course, looks too perfect and fresh, so I painted texture maps in Photoshop and applied them to Zaz, keeping his color darker near the seams and lighter in the broad exposed areas where any cloth dye fades in the due course of time.

Zaz's world

What's that behind Zaz?

The colors in this work are designed to dazzle, and for a reason. Our former work "One by Two" was a minimalist film, which called for a bare color scheme with a predominant white background. "Up" is a more dynamic work and deals with the theme of celebrity. It naturally demands a brighter and more vibrant look. Though the shots change from high key to low-key based on the dramatic mood of the scene, the saturation is generally high throughout.

The first scene shows the happy-go-lucky Zaz walking along and in a light mood. We chose a bright yellow-orange combination to set the mood for this scene as well as to establish the general level of brightness and saturation for the entire work.

As the scenes become progressively more flamboyant and dramatic, we chose more intense and wilder colors. For fear of disorienting the audience, we tried hard to keep some color continuity from one scene to the next. In the last one-third of the film, we enter a more abstract, psychological space, and the colors although deep and saturated, are free to change from scene to scene. Zaz is on the same platform for this entire sequence with the spotlight, and the background color changes drastically in response to Zaz's growing anguish.

In the last scene, we see Zaz at his lowest point emotionally, and it is a slow, quiet scene. In the end, Zaz returns from the height of celebrity to become nobody, like he was in the beginning. The background is a sober shade of yellow, marking a solemn return to the color scheme of the first scene minus some of its brightness and saturation.

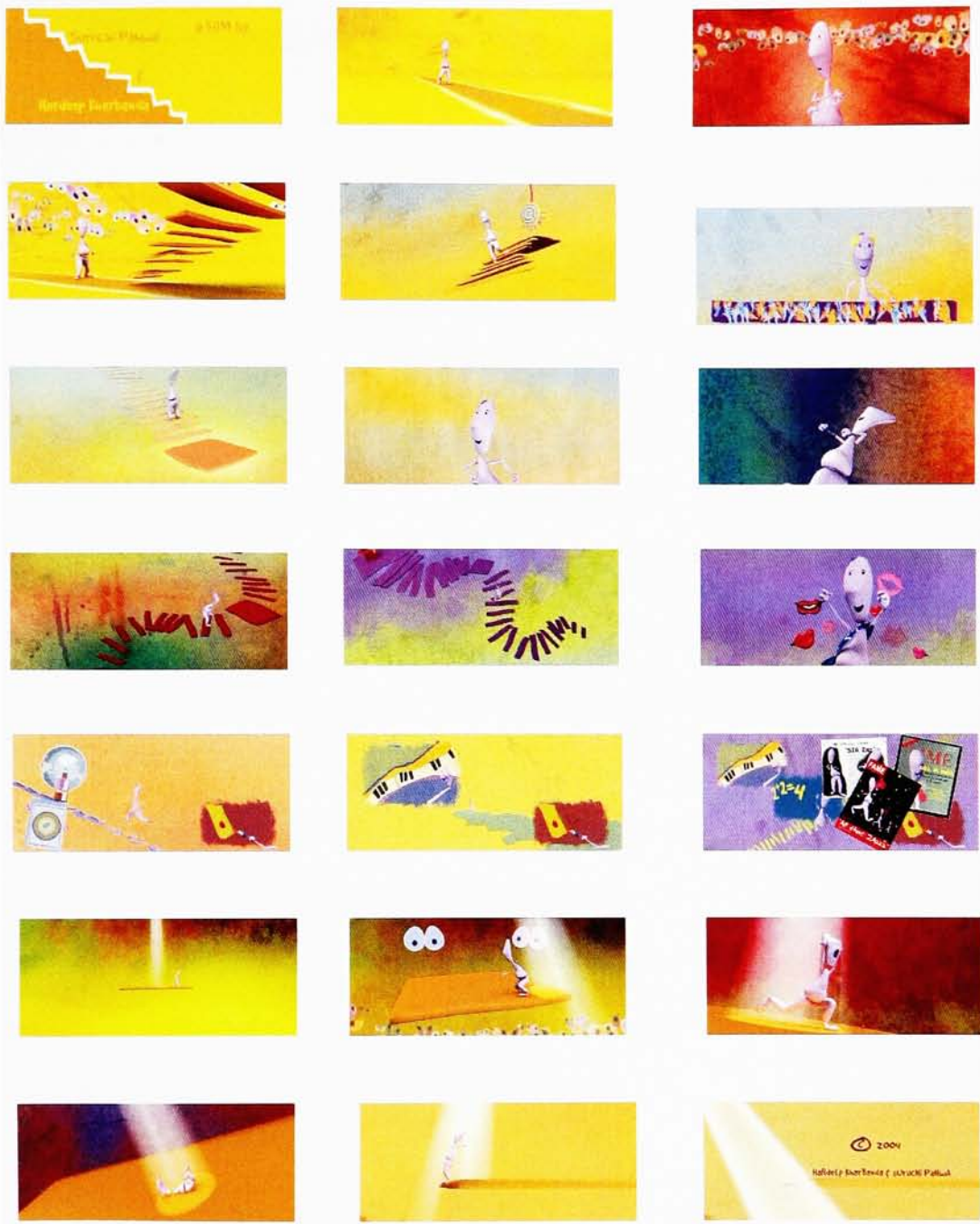
People who have seen the film have really appreciated the texture of the film. Some have called it 'painterly' and some have called it 'fluid'. The secret is... rust. And concrete. And metal. These were only some of the numerous textures used in designing the backgrounds. They were combined with layers painted in Photoshop, and blended together using different modes to create a vibrant, funky look. It was great fun working on the backgrounds, trying different brushes and effects, just winging it, yet carefully deciding the final colors and textures so as to maintain continuity and fit in with the color progression mentioned earlier.

Stepping through color

The colors of the steps and platforms that keep appearing through out work were also carefully planned: Since the road he initially walks on was orange, we colored the first flight of steps and the first platform orange for consistency. Since a new adventure begins at each level, the colors of the steps and platforms change. However, to preserve somewhat continuity and to avoid the distraction of arbitrary color changes, the colors follow a pattern. Each new color is chosen by going round the color wheel in one direction as the scenes progress.

For example: After the dart scene, the new flight of steps that appears is a shade of peach. It appears a short distance from orange, in the clockwise direction on the color wheel. The next color we see for the steps is a deep red, which is further along the color wheel in the same direction. This is followed by a dark purple, which continues through the hat scene. In the montage that follows, we quickly go through shades of blue and green, all the time progressing roughly clockwise along the color wheel. At the end of the montage, when Zaz reaches the final platform, we return to orange, the color of the very first steps. Here we begin a new chapter of the story, with the spotlight that Zaz first loves and then comes to hate. This is also the same platform from which he dives off at the very end. All these reasons made it fitting to return to the original color, completing the cycle from the beginning to the end of Zaz's rise to fame.

color chart!



Moving up

Should I Stay or should I Go?

Pacing the film was harder than we thought, probably even harder than getting the motion right. We realized once again, how easy it is to get lost in the details of animation and lose sight of the big picture and how the shots work (or don't work) together.

Though we had carefully blocked out the scenes to ensure that camera cuts worked, the length of each shot was hard to judge. This was mainly because we knew the story, and we knew what to expect at every minute, even before it happened. That made it hard to judge shot length since there was no NEW information for us to digest in each shot. From our experiences with previous projects, we knew we had a general tendency to make things happen too fast. We took extra care to keep the action slow, introduce long holds, and give the character time to react and transition over the duration of each scene. When we showed this to our advisors and friends, they found it too fast! That was a nice jolt: We went back to the patient task of extending, slowing down, and adding holds. The next version was too slow for some people! Even after the animation was completed, the main critique was that the last scene was too slow and drawn out, making it too predictable.

Bottom line: Perfect pacing is still an extremely elusive goal.

On shaky ground

In going with the liveliness of the film, I designed the environment to be ‘alive’ and react to the character as he goes through it. Consider the steps. Since a large part of this movie is about climbing, the action had to be special. I envisioned the stairs as consisting of disconnected planks suspended in the air, each one of them giving way and ‘bouncing’ when Zaz steps on it. This makes the climb visually interesting, and suggests how unsteady and vulnerable his rise to fame is.

Animating the steps wasn’t so easy, however. We tried automating the bounce using MEL scripts, but that didn’t give the right look and feel. So we decided to animate each bounce manually. Although this took a lot more work, the result was a nice natural feel in the motion.

The spotlight being Zaz’s main adversary in the last act of the film, called for special care. Our challenge lay in making it too feel ‘alive’. Speed was one part of the solution: The spot is zippy, and reacts quickly to what Zaz does. Not too quickly, however. When I animated it reacting instantly to Zaz’s actions, it seemed too automatic and mechanical. Giving a lag of a few frames made it look like it was really responding to Zaz. I then added anticipation and overshoot whenever it started and stopped moving, completing the illusion that the light was indeed alive.

All that Zazzzz

The montage is an important part in this work as it comes at a time when the pace is building up fast, and is going to slow down thereafter. We always wanted something fast paced at this point in the film. But when we started doing it we realized how difficult the pacing was. A Montage sequence planned for 20 seconds went to around 30 seconds. A Lot more work!

First I started by drawing images in Photoshop. Here I took care to bring out the bright and rich mood of the film. The color scheme changes throughout the montage since it is an abstracted condensed and rushed depiction of Zaz's rise. The colors and backgrounds I picked in the beginning went through many changes and revisions by the end of production!

While I was animating the 2d elements for the montage in After Effects, Sunny was animating Zaz do his tricks, like: "Play the Piano", "Paint the Dot", "Switch on the Light" and "Get his Mathematics Right". We had to split the work this way to speed things up.

The biggest challenge we faced was blending the 2d and 3d elements of the montage. For example: we had Zaz running up the stairs animated in Maya and rendered using Mental Ray, but the images of the martini and other 2d elements were done in Photoshop. Then there were effects added in After Effects like the flashes from the cameras. Bringing all these elements together was very challenging, since there were so many and it could easily have become a distracting mess. Lights were flashing, martini glasses clinking, degrees tumbling,

magazines spinning and so on. With all these things happening in the foreground there was one constant, and that was ZAZ running up the stairs in the background. To prevent the sequence from getting monotonous, I showed Zaz's run from all possible angles. Sometimes from far, sometimes as close-ups of Zaz's legs and sometimes we didn't show the steps at all, so that Zaz's climb was just suggested by his animation. I faced the challenge of having to be extremely organized. To facilitate this I made separate compositions for each 'STAGE OF SUCCESS'. Each of these in turn, had nested compositions.

All the time we kept thinking: Will all our work show in the end?

Encore for Amanda

‘One by Two’ composer back with a gem

The bold, vibrant visuals in UP called for a music track that matched it in mood, with varying pace, quick transitions and extreme emotions. Having worked with composer Amanda Jacobs on One by Two with great success, we naturally asked her to score this work too. The earlier film is much simpler in its design and story, whereas “UP” is a richer, more complex work. It was a challenge even for Amanda, but she delivered.

More than delivered - she gave it her all. The music echoes the ups and downs in the film with an adept fluidity. It is dynamic, and creates a fullness using minimal instrumentation. Best of all, the music is catchy. Amanda chose the piano as the dominant instrument, its keys acting as the musical parallel of the endless array of steps Zaz climbs.

Our approach to sound effects was simple: we did not want any. We opted for organic musical sounds instead, keeping in line with the playful, iconic design of the visuals. Here, too, Amanda showed great creativity. She used an array of instruments and objects to create iconic sounds that worked great! Rhythm sticks, Maracas and Clappers became the sounds of an applauding crowd. Two quick, well-chosen piano notes made a sneeze. A can of Coke popped open became a kiss. This way, she built us a rich bank of sounds to play with.

Despite her other commitments, Amanda worked hard on the score, never compromising on the emotional quality of the music. She did it all for free and yet stayed professional, even through changes and revisions. Once more, we have a score we’re proud of.

Let's give Zaz some credit

We were determined to use animated title sequences, since we feel that a good opening title sequence whets the audience appetite and sets the mood and tone for the work they are about to see. Likewise, animated closing credits keep the interest of the audience focused on screen even after the movie ends, and add that little extra to the feeling they take away from the movie.

Although we had also wanted animated titles in *One by Two*, we never got around to it with all the last-minute fixes that kept us busy. So this time we made the titles very early on, to ensure that we had them!

We wanted the opening titles to give a brief, symbolic suggestion of what the content of the story was about: climbing. So, we came up with the idea of a line that goes on to form steps with the titles laid out on or around the steps, which is revealed as the camera pans over them. In the end, the line becomes the road that Zaz walks on in the first shot, and for a smooth transition from the 2-d title sequence to the 3d opening shot. I designed simple, graphical steps of two different kinds: a regular staircase, and a stylized vertical flight of steps that is actually derived from the cross section of a spiral staircase. This was a more abstract one, giving the suggestion of ascent without being obvious. I laid out the titles around the steps and animated fast, zippy “pans” in After Effects. Timing was a challenge, since the titles had to be on the screen long enough to be readable, but at the same time the sequence had to be dynamic and keep the audience’s interest.

The beginning titles use the steps, one major visual element of the film, as the theme. For the end credits, we used the other one: the spotlight. In keeping with the seamless continuity from the opening titles to the first shot, we dissolve from the last shot to the start of the closing title sequence. To distinguish the two, I muted the colors and stylized the light beam in the credits sequence to make it look flat and 2d. Since the movie ends on a low note after Zaz dives off, the pale, desaturated look works best. Then the beam sweeps across the screen, revealing the credits as it goes. This gives a quiet yet interesting feel to the end of UP.

By using smooth transitions between the title and credits sequences and the movie, we managed to achieve a nice effect, and kept the audience engaged from the very beginning till the very end.

2's company

My experience working with Sunny was absolutely amazing. It was even better than the first time. While working on our first collaboration One by Two we were still getting to know each other, figuring each other's styles and struggling to coordinate our styles and working habits. But by the second animated work we were a great team! We complemented each other wonderfully. Always contradicting each other – fighting, arguing – it ultimately made the movie so much richer. At times Sunny didn't agree with what I was doing and vice versa, but we always discussed our ideas and visions and came to productive resolutions, which worked to the benefit of the movie.

Sunny, being more patient and a much calmer person than I helped the movie too. He kind of calms me down when I am stressed that things are not going at the speed they should go. This helped a LOT! It's always great to have one calm person on the team as that keeps things moving. We were an excellent blend working together: always bouncing ideas off each other. I always learned from Sunny. He has so much knowledge about software that it was a constant learning experience for me. I really hope I get to have many more opportunities to work with Sunny!

Curtains

I was quite nervous on screening day! Three years of film school all leading down to this one critical screening: It had to be perfect. I did not want any little thing to go wrong. What's more, my family was there to attend it, even my grandparents. While this was comforting in one way, in another way it also added to the stress! Everything had to be perfect. When UP screened, it felt great to see the audience enjoy it! The best part was that people understood the idea easily, and that's one thing I had been paranoid about. The story, the backgrounds and the animation were all appreciated. There were a few suggestions made for improvement of UP but on the whole the work is successful, significant and a crowd pleaser.

Appendix A: The Proposal

Celebrity

(Working Title)

Story

An ordinary person quickly achieves a hollow and undeserved fame, which then drives him to the brink of insanity.

Synopsis

A young ordinary man Zaz, wearing extremely simple clothes, comes across a ball on the ground. He picks it up and casually throws it. It happens to fall into a hoop. An audience consisting of many cartoony eyes appears all around him. Sounds of cheering. A staircase with a few flights appears. It consists of brightly colored planks suspended in the air. He looks around and begins to climb it. Each plank bounces a bit as he steps on it. He reaches the top landing of the staircase. A target pops up at arm's length. He removes a dart from his pocket and pokes it in the bull's eye. More applause. His clothes fall off to reveal a fancier costume, with a large, shiny gold medal on its lapels. Another set of stairs appears. He leaps onto the new staircase in style, and continues climbing. At the next landing are a magician's hat and a piece of cloth. He puts the cloth in the hat and removes it with a flourish. It's still the same cloth. Applause. People go crazy. Zaz's costume falls off revealing a yet grander one underneath. More stairs appear.

Now begins a montage showing his rapid rise:

He paints a dot on a canvas and flash bulbs go off all around him. The background comes alive with silhouettes of top hats, martini glasses, streamers, cigars and other icons of high society. He declares $2 + 2 = 4$ and degrees rain upon him. Prestigious magazine covers featuring Zaz float in the background. He plays one note on the piano and is showered with awards. He puts a light bulb in a socket and light appears. Thunderous applause.

He proudly sets foot on the top level of the immensely high staircase. He is loaded with awards, garlands, lipstick marks and other signs of material success and popularity. There is a bright spotlight shining straight down. He pompously steps into the pool of light and raises his hands to acknowledge the crowd below. The crowd gives out an awe-stricken gasp. After enjoying all the attention, he becomes tired. He takes a bow and begins to back up to exit the "stage". As he slowly walks backwards the light follows him in accordance with a proper stage exit. Suddenly he reaches the rear edge of the stage and almost falls over but regains his balance just in time. He hears Gasps from behind him. He turns around and sees a million eyes staring at him. Confused he hastens to another edge of the stage, only to see more eyes. The light follows him. Scared, he rushes to the front of the stage. On reaching there he sees the staircase below him disappear. More eyes. Frantic, he starts running around the stage but there is no escape. The spotlight is dogging his movements.

Zaz withdraws to the center of the stage petrified. He looks around nervously and the constant gaze of the eyes makes him uneasy. He looks up and gestures to turn off the light, but it only gets brighter and begins to blind him. He sneakily steps out of the pool of light and breathes a sigh of relief. But in an instant the light moves on him. He leaps away from the light. It moves on him again. He freaks out and begins to run around the stage. The light chases him. He collapses to the floor exhausted and clutches his head. He looks weary. His face has aged tenfold. He sobs, hits the ground with his fists, laughs hysterically, and then cries again. Crushed, he crawls slowly to the edge of the stage (The light slowly follows him). He peers over the edge. The eyes disappear and the crowd sounds fade. He is all alone in the spotlight. Slowly he stands up, takes a deep breath and DIVES off the edge into the darkness. The crowd APPLAUDS.

Approach

The film will be made in 3D using Maya. The characters will be 3-dimensional but with a scratchy crayon look on the surface. The environment will be simple yet dynamic and the overall color scheme will be bright.

The music will be composed to fit the theme and will also provide the sound effects.

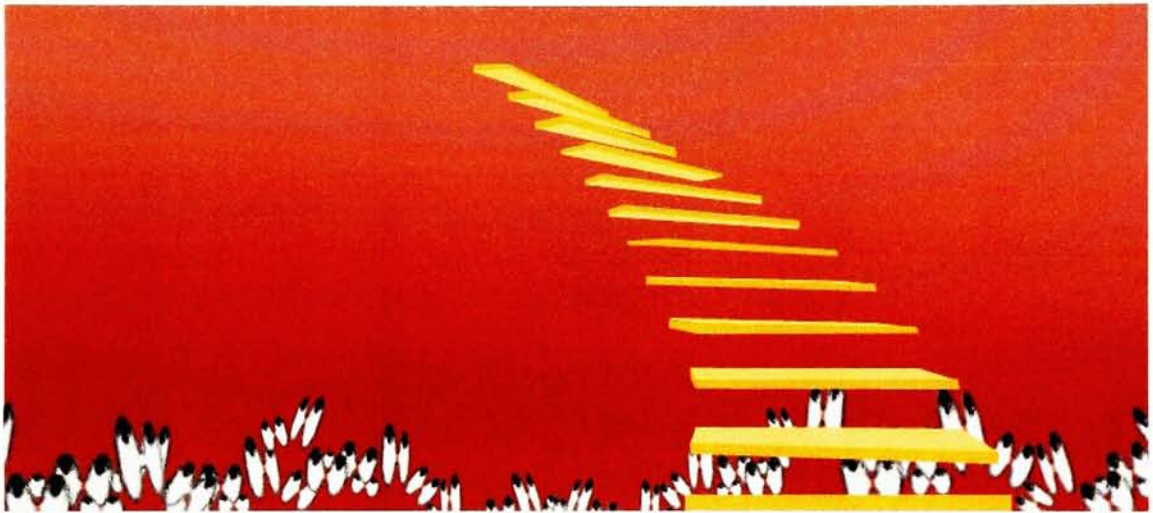
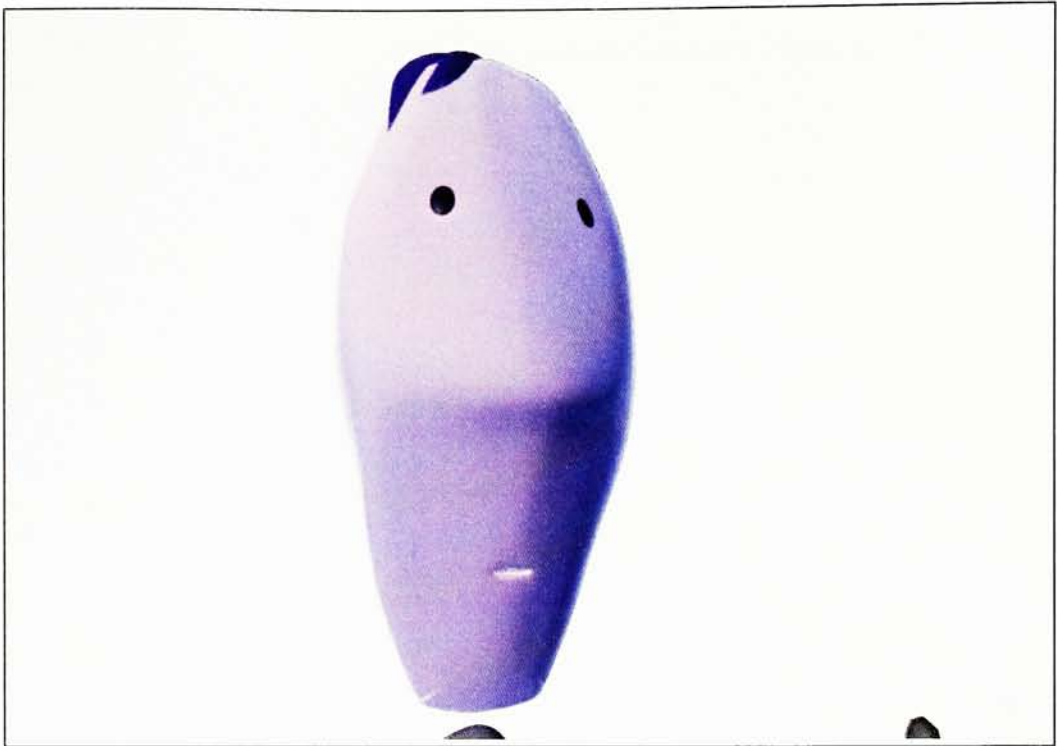


Image showing the crowd and the staircase



Character Model



Champagne Celebration!

Tricks
 ends has to best drinks from
 in the world. I think tend to
 in one of the best business
 in the world.

2003 issue

Herald INTERNATIONAL Tribune

3rd May 78

People

LIFESTYLES OF THE RICH & POWERFUL

This year's elite gathering at Sotheby's Grove brought together a Time Warner executive (invited) and a Time Warner executive (uninvited). Guess who threw out whom? An expose of Time Warner's untold stories.



Time Warner's Star Steve Ryan
The 78 Million Dollar Man

Zaz Flying Flying back from Mumbai Gets knited as SIR.





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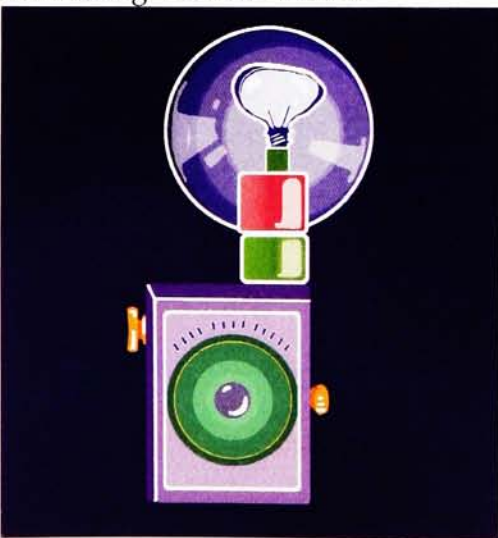
Illustration in the News Paper



Martini Celebrations!



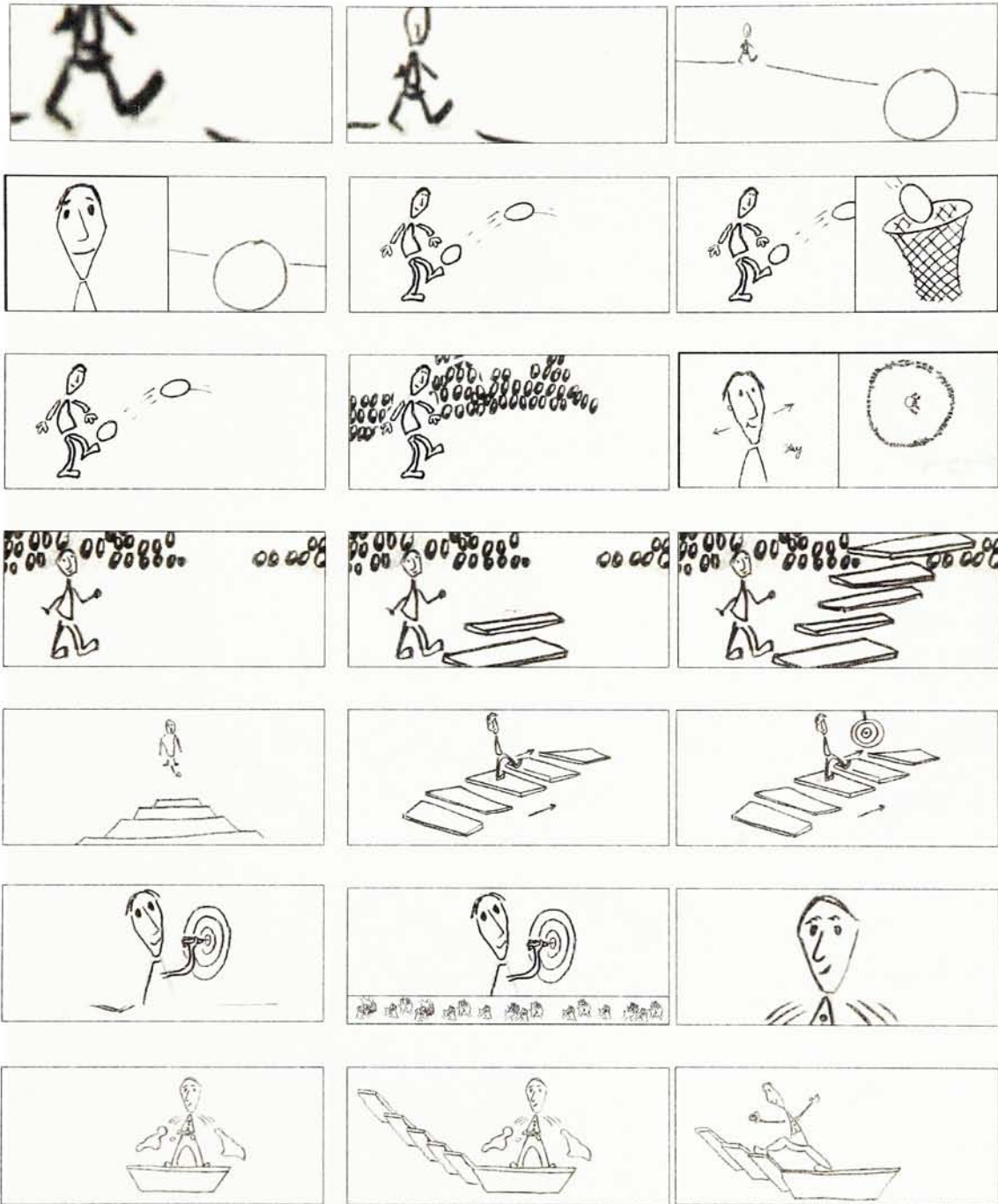
Smoking Illustration



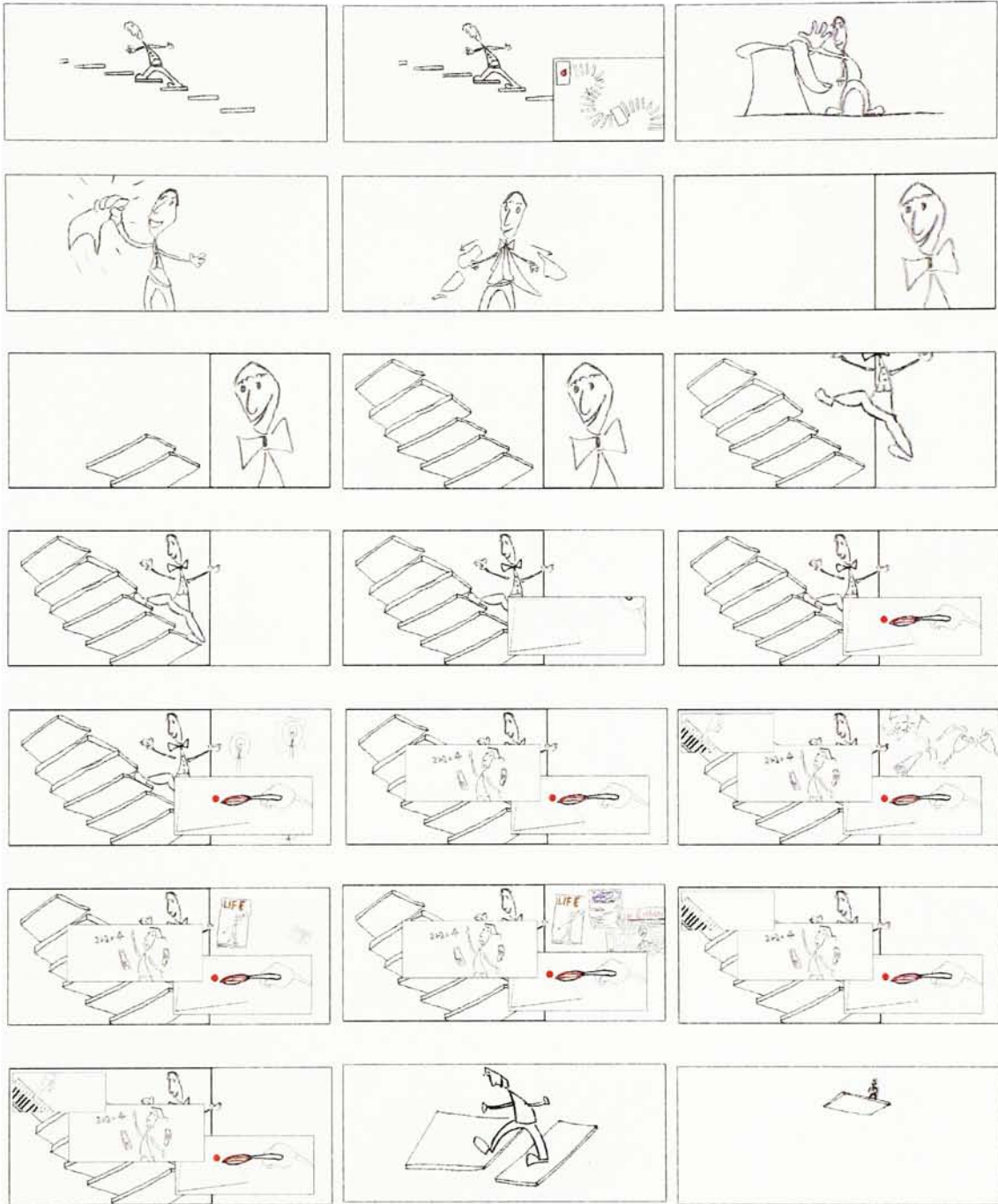
Flash Bulb

Appendix B: A Life in Pictures

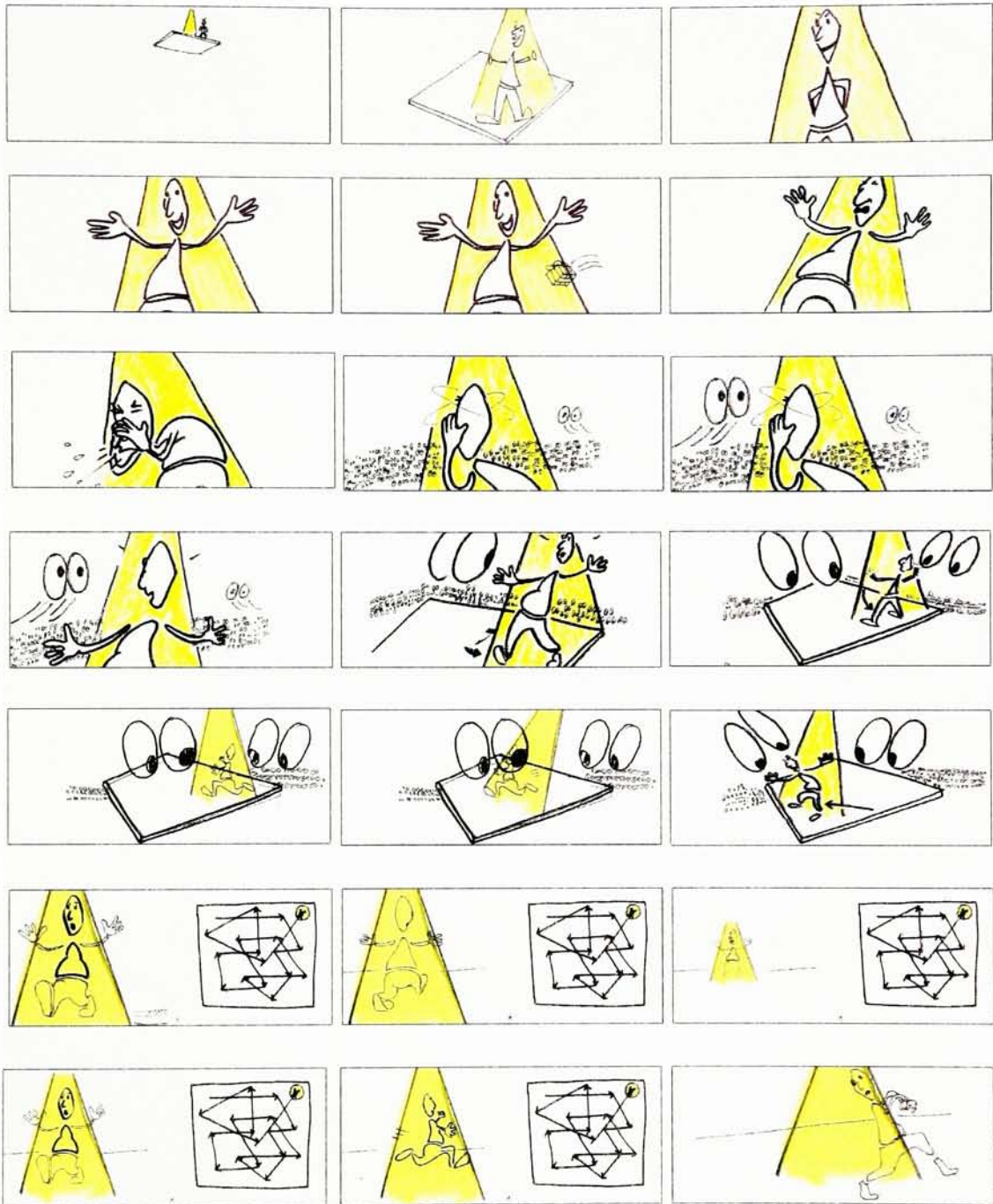
Storyboard



Storyboard



Storyboard



Storyboard

