URBAN REHABILITATION AND THE PUBLIC
ABSTRACT

URBAN REHABILITATION AND THE PUBLIC

Introduced by:

A discussion -- Architecture and the Film

Then follows:

A brief analysis of the screen-play

After this:

The screen-play itself

The sound-track on the left. The image on the right

And then:

A discussion of the animation techniques involved

To which is added:

An appendix containing two suggestions

And finally:

A bibliography containing one book.

CHARLES M. CORREA

Submitted for the degree of Master of Architecture in the Department of Architecture on January 17, 1955.
A thesis submitted in partial fulfillment of the requirements for the degree of Master in Architecture at Massachusetts Institute of Technology

Submitted: 17 January 1955

by:
Charles M. Correa
B.Arch., Univ. of Michigan

to:
Lawrence B. Anderson
Head, Department of Architecture
M.I.T.
I would like to thank:

Dr. William C. Loring, Jr., Mr. Charles F. Ernst, and Mr. John E. Connolly, of the Housing Association of Metropolitan Boston, who commissioned this film;

Prof. Gyorgy Kepes of the Department of Architecture, Massachusetts Institute of Technology, who encouraged it;

And Mr. Jerry Ballantine and Mr. Joseph Rothberg of the Dekko Film Productions, Boston, who guided its final production.
INDEX:

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduced by:</td>
<td></td>
</tr>
<tr>
<td>A discussion -- Architecture and the Film</td>
<td>4</td>
</tr>
<tr>
<td>Then follows:</td>
<td></td>
</tr>
<tr>
<td>A brief analysis of the screen-play</td>
<td>10</td>
</tr>
<tr>
<td>After this:</td>
<td></td>
</tr>
<tr>
<td>The screen-play itself</td>
<td>14</td>
</tr>
<tr>
<td>The sound-track on the left. The image on the right</td>
<td></td>
</tr>
<tr>
<td>And then:</td>
<td></td>
</tr>
<tr>
<td>A discussion of the animation techniques involved</td>
<td>22</td>
</tr>
<tr>
<td>To which is added:</td>
<td></td>
</tr>
<tr>
<td>An appendix containing two suggestions</td>
<td>26</td>
</tr>
<tr>
<td>And finally:</td>
<td></td>
</tr>
<tr>
<td>A bibliography containing one book.</td>
<td>27</td>
</tr>
</tbody>
</table>
ARCHITECTURE AND THE FILM:

If we consider what the arts have in common, we will find it is this: they are all concerned with the creation and manipulation of emotion.

There are many ways in which an object or a situation may become meaningful to us—through age, or through use, or through identification (e.g., your village, or your house, or your family) — but when this process is created consciously and deliberately by an individual, it is called art. Now the meaning that an artist gives an object varies of course from one artist to the next (and is an excellent indication of his soul — or lack of it.*). Some artists will achieve a meaning (or emotion, or atmosphere, call it what you will) that is particular and intimate — like Ravel or Eames; others, one that is epic and universal — like Mies van der Rohe; still others, unfortunately, one that is pure melodrama — like Bruce Goff or Mickey Spillaine. But this concern with (and responsibility for) what may be called the emotional implications of the creation has always been and will always be the essence of art. The Twentieth Century has brought no upheaval — it has merely recognised what the Age of Reason felt instinctively: a fine intellectual exercise can bring great emotional pleasure. That is to say, we can

*What Goethe was alluding to when he made Werther say, in a letter to a friend, that he is always being praised for his intelligence and his knowledge, whereas it is his heart — which nobody ever mentions — that is the really remarkable thing about him. (As quoted by W.J. Turner in "Mozart: The Man & His Music")
reach our hearts not only through our eyes, ears, and fingertips, but through our brain as well. Thus the most cerebral mathematical theorem can be a work of art - as in fact it often is - since its stunning clarity will be a source of great delight to the mathematician. This is an important point. Modern Architecture would be far better understood if we looked upon it from this viewpoint. Functionalism, then, becomes something that not only works, but that works so well, or in such a manner, that we become emotionally involved in it. Otherwise it is not architecture. It is merely commonsense.*

Now once we can agree that the arts - painting, poetry, music, etc. - have all of them, their main objective in common, we can start to differentiate them with respect to their most important difference: the time-scale. For all the arts are not perceived in the same manner. Some of them - like painting - are perceived in total, simultaneously, all at once. This is one end of the time-scale. At the other extreme

*Look at the difference between Le Corbusier and - let's say - Skidmore, Owings & Merrill. Both are "functional". But whereas Skidmore uses an idea that works, Corb uses an idea that works in such a way that it sings. This is not to say that Corb is more rational than anyone else. Far from it. It only means that the ideas he evolves are more emotional than anyone else's. Like Bucky Fuller, he is an artist who deals in ideas. (The same may be said of van der Rohe and his preoccupation with structure.) Now there is a very dangerous, but natural, tendency today to disregard the emotional consequences of what we create (in other words, the esthetics) as being too subjective. This, of course, is impossible. True the world of the emotions is a flimsy and intangible one - but that is just what makes the task so challenging! And the reward so fine. To disregard the emotional consequences of what we create - which is exactly what is happening today - is to produce what at best can be called architecture without a conscience. An architecture, furthermore, that not only carefully avoids the heart, but which is often so plodding that it misses the brain as well.
occurs the opposite - as for instance, in music or the dance. These evolve, unwrap, unfold, with the passage of time. They cannot be either perceived or created apart from this time-scale.

Now what is the problem of the artist at each end of the scale? Certainly at the musical or dance end of the scale, it is relatively easy for him to achieve organization and meaning through the creation of rhythmical patterns. A train journey - though not yet an art form, thank goodness - is an excellent example. The chaos of telegraph poles, stations, trees, etc., takes on meaning simply because they rush past us one at a time in varying rhythms. The difficulty at this end of the scale, then, is not so much to evolve linear interest but rather to communicate the overall integrity of the concept - for that is a far greater challenge! This explains why the musicologist prefers Mozart and Bach to Tchaikovsky and Rachmaninoff. The former makes you aware of the overall journey, whereas the latter concentrate on each telegraph pole as it flashes by.

Now let us go to the other end of the scale. Here the problem is exactly reversed. The overall pattern is easy to put across - the real difficulty is to create directions and rhythms. Painting is an excellent example. All the laws of composition, whether they be Renaissance, Baroque, or Cubistic, are all simply ways to draw the eye in linear motions over something that is essentially static. In other words to introduce time and sequence into something that is still. The Japanese have long understood this and, like the mural painter, have introduced a linear quality into the very proportions of their canvasses - thus greatly facilitating
the creation of time-sequences, since the eye itself has to travel over
the length of the composition.

Where does architecture fit in such a time-scale? At neither end, but
somewhere in the middle. And because of this it has the problems of
both extremes. Like painting, it is essentially a static object, and
thus the architect needs must create time-sequences - to draw one in
and out and across the building. Certainly the success of - for example
- the Paris Opera House or the Acropolis at Athens is attributable in
large measure to the magnificent sequences of light, colour, and form
which the architects have created.

On the other hand, as one does walk around and through a building in
this fashion, there is very great danger indeed of losing the overall
concept of the work in the observance of particular rhythms and patterns.
And to avoid this the architect does his best to subjugate these rhythms
and patterns to the overall concept. Or better yet, he makes them an
integral part of it. As witness Mies van der Rohe in the IIT campus.

Now it is this drive for integration, for a total concept, that gives
the architect so much in common with the musician. This is why - since
time immemorial - they have always been linked together in any discussion
of the arts. And this is why a supreme musician like Bach has always
been considered a supreme architect as well. All this in spite of the
fact that in actual physical terms they could not be more dissimilar -
one is solid and material, the other completely ephemeral; one is per-
ceived with the eye and the touch, the other with the ear alone.
The Twentieth Century has added a new art-form - perhaps as Basil Wright declares "...the first and only new art form to be discovered by man within recorded history" - the Film. There is no question as to which end of the time-scale it belongs. It is at the extreme end, right next to music. It has that in common with architecture. But it has even more. For it is also vitally connected with graphics and the whole field of painting. That is to say it approaches architecture from both these directions, from both ends of the scale. Like painting, there is needed an eye for rhythm; like music, there is needed a mind for integration.

There is yet a third and major point that the Film has in common with Architecture. It is this: one of the most important aspects of the film is its ability to make meaning out of disconnected and (in themselves) meaningless images, just because of their proximity to one another. To quote from Raymond Spottiswoode in his chapter on editing:

"...the juxtaposition of two shots and their accompanying ideas can give rise to a third idea which has no physical embodiment. This is the root of the film editor's power. By clever intercutting he may so arrange shots of a weeping child, a violent explosion, and a blazing house that the audience will think that the child has lost his home and family through bombing. Yet the shots in truth may depict something quite different. The child may be a kid in Brooklyn who is howling over the loss of his pet kitten; the explosion may be that of a wall of rock dynamited ten years before to make a railroad cutting in New Zealand; the fire a peacetime accident in Buenos Aires. And all the time he (the amateur film-editor) becomes more conscious of the overtones which each juxtaposition of shots and sequences will convey. The Russian directors were right in insisting that two shots do not merely add up to A plus B; they produce a new element C, from the fusion of A and B."

But this enrichening of one element because of its relationship to another is the very essence of architecture and city-planning today. If modern

*Spottiswoode, Raymond: FILM AND ITS TECHNIQUES, Chapter IV, pp. 90 et seq.
architecture accomplished anything it was to make us realise that a building was not always a mere collection of fine materials; and similarly a fine city was not always a mere collection of fine buildings and parks. (In fact it would seem quite safe to state that the real appeal of all our great cities is quite apart from this, and has in actuality to do with the sense of "immediacy" of the elements involved - skyscrapers and shadows in New York, the ocean in San Francisco - and nothing whatsoever to do with the antiseptic green belts so dear to the heart of Kansas City and Lewis Mumford.)

But to return again to the main discussion.

There is a real point of difference between Architecture and the Film - this is what may be called the Kinetic Strength of the latter which has no counterpart in the former. The world of the film is essentially that of the railway journey - the world of exhilarating motion. (Certainly the most successful moment of Cinerama was the opening scene - when the whole screen, and of course the audience with it, lurched and plunged down the rollercoaster in a paroxism of energy and confusion.) Architecture has no such moment. All our beloved diagrams, so elegant and incisive on the dinner napkin, are intolerably lethargic on the silver screen. To represent a new force the architect needs add but a new arrow, the screen must have a whole new image. This is not at all a difference in subtlety or taste - it is far more basic than that. It has to do with the very nature of the medium itself. But more of this later, after we have read the film-script itself.
The first screen-play drafted was completely different from this one, and was a far more academic and severe (and, I'm afraid, dull) exposition of the subject. Rather than try to "humanise" what was essentially a chalk-talk, I decided to go to the other extreme and build the script around an actual human situation - Joe - and use him to represent and symbolise the whole problem. The solution is arrived at by the neighbourhood people themselves; the trained expert (with his bagful of tricks) is nowhere in sight.

The first and most basic problem was this: should the movie be a cartoon or a real-life feature? Or both? The advantages of the cartoon were compelling: nothing makes a point so strongly or so effectively as a good diagram - and since the film was only ten minutes long, it was imperative that the ideas follow one another in a clear sequence, with no ambiguity to slow them down. On the other hand, a cartoon is, at best, only a clever drawing. Nothing can achieve the conviction of a good documentary photograph; and to convince the public of the need for better housing was one of the primary aims of the film. Then why not both? I was dubious. The visual and technical problems involved would be staggering. One had to choose - cartoons or real-life. Being an architect (trained to think in diagrams rather than sunsets) I chose cartoons.
It may be useful to give here a brief analysis of the script, to show how the whole problem was translated into visual terms:

I THE NEIGHBOURHOOD AS IT IS TODAY (Scenes 1 - 5)
Not only are the colours dark and subdued, but also the timing and mood of this sequence is very slow and sad. Notice that there is very little animation - this would have been too jaunty and would have served only to spoil the mood. The atmosphere is built up by a series of continuous panning shots. In the background is a clock ticking. (To denote the passage of time, and to add to the tension.)

II HOW DID THE NEIGHBOURHOOD GET THIS WAY? (Scenes 6 - 19)
A complete change of colour and mood to scene 6 - this is the way it was, sunny, clean. Then the factors start to appear - neglect, the factory, the railroad, etc. The pace quickens, the images get stronger. The sidewalks crack, the lights break, the walls peel. The end of the last scene is slow again. "The children had no place to play."

III THE NEIGHBOURS LEAVE; BUT JOE STAYS (Scenes 20 & 21)
Again pathos. Sad colours. Slow mood.

IV JOE'S FAMILY AND WHAT THEY NEED (Scenes 22 - 36)
Each member, of course, symbolises a particular need in the community. Here the pace is faster and more hopeful.

V WAS ALL THIS POSSIBLE?! (Scenes 37 - 39)
Joe. Quick. Excited.
VI  IT'S A POOR NEIGHBOURHOOD  (Scenes 40 - 47)
The pessimists at the meeting. Again the slow long shots. This
time with crooked camera angles and tilted horizon lines to in-
tensify the pathos.

VII  WHAT IF THEY ALL WORKED TOGETHER?  (Scenes 48 - 55)
Joe's idea . . .
N.B. Most of these sequences are just scenes 6 - 19 in reverse.

VIII  THE REFUSE  (Scenes 56 - 60 )
What they can do to clean up the place

IX  LAW ENFORCEMENT  (Scenes 61 - 65)
Touchy point, but very necessary. Could not be put at the end of
the meeting (where it belonged logically) for people would go home
thinking the Gestapo was behind the whole thing. At the same time
people should not feel that they are working all alone.

X  THE RAILROAD AND THE FACTORY  (Scenes 66 - 72).
Jim (who works in the factory) answers this one, as Joe shouldn't
know all the answers. Important point here: they need the factory,
they need the railroad.

XI  EVERYONE VERY ENTHUSIASTIC, MANY IDEAS  (Scenes 73 - 83)
Very quick editing, strong images.

XII  BUT HOW COULD ALL THIS BE DONE?  (Scene 84)
Big question mark.
XIII THEY MUST ALL GET TOGETHER (Scene 85)

At this point, really, the movie ends.

Added on as a sort of coda and chalk-talk is:

XIV REVERSING THE CYCLE OF WASTE (Scene 86)

A simple graphic diagram which is the key to the whole movie.

XV THE HORIZON LINE AGAIN (Scenes 87 & 88)

To complete the movie visually, a return to the first scene.

It will be noticed that the whole problem has been considerably simplified — also that several important aspects (such as the interests of tenants who do not own their homes) were not taken into account.

However regretful, this had to be done. In many cases the topics involved were too complex to be discussed and solved in the space of a few seconds — or for that matter, minutes or years. On the whole, it was judged better to hit only the really important points really hard — and thus avoid confusion. It must be remembered that the main purpose of the film was to produce enthusiasm, not city-planners.*

*Not, of course, to imply that the two are mutually exclusive.
THE SCREEN-PLAY:

"YOU AND YOUR NEIGHBOURHOOD"
THIS IS A HOUSE.
THIS IS AN OLD HOUSE.
THIS IS THE HOUSE WHERE JOE LIVES.

JOE HAS LIVED HERE MANY YEARS.
THINGS HAVE CHANGED AROUND HIM.

THE TOWN HAS GROWN -- 
THERE HAVE BEEN NEW HOUSES, NEW
SCHOOLS, NEW OFFICE-BUILDINGS.

(Clock continues to tick in background.)

YET, SOMEWHERE ALONG THE WAY,
JOE'S NEIGHBOURHOOD HAS BEEN LOST
IN THE SHUFFLE.

IT ISN'T AS NICE AS IT USED TO BE.
JOE ISN'T VERY HAPPY ABOUT IT.
HE WONDERS WHAT HAS HAPPENED.

WAS IT THE NEIGHBOURS?

WAS IT THE FACTORY?

WAS IT.....HIMSELF?

ACTUALLY THERE ARE MANY REASONS WHY
JOE'S NEIGHBOURHOOD IS RUN-DOWN, AND
JOE'S GUESSES AREN'T VERY FAR OFF --
IT WAS THE NEIGHBOURS,
IT WAS THE FACTORY,
IT WAS JOE HIMSELF.

BUT THESE WEREN'T THE ONLY REASONS.

(End of clock ticking.)

Darkened screen. Then,

Fade in: 1. Aerial view of the back-
yards of the neighbour-
hood.

Pause. Camera starts to close in.

Camera reaches house.

Camera starts to pan vertically up
towards horizon line.

The skyline grows. Spires, chim-
neys, etc., spring into place.

Pause. Start panning back to Joe's house.
Reach house, cut to:

2. Backyard of Joe's house, in
elevation. Garbage cans.
Washing. Broken fences.
All the time the camera is panning,
slowly, carefully.

Cut to: 3. Close-up of Joe at window.
Disconsolate.
Joe's eyes move in perfect synchron-
isation with narration at left.

Camera continues to pan across.

Cut to: 5. A narrow alley between
two old houses.
Camera is now panning vertically
upwards.
Pause
Fade out slowly.
WHEN JOE MOVED HERE IT WAS A NICE PLACE. EVERYONE LOOKED AFTER HIS HOME. IT REALLY WASN'T ANYBODY'S FAULT IN PARTICULAR THAT THINGS GOT BAD. IT'S JUST THAT EVERYONE STARTED PAYING A LITTLE LESS ATTENTION TO THEIR PROPERT. AND THE WORSE THINGS GOT THE LESS THEY CARED. A FEW PEOPLE DID TRY TO CLEAN UP. BUT IT WAS NO USE. THEY SOON GAVE UP.

THE RAILROAD DIDN'T HELP ANY EITHER.

IT BROUGHT NOISE.
IT BROUGHT DIRT.
IT BROUGHT DANGER TO THE CHILDREN.

SO DID THE FACTORY.

GRADUALLY JOE'S NEIGHBOURHOOD GOT WORSE AND WORSE.
THE STREETS BECAME UNTIDY;
THE SIDE-WALKS CRACKED;
THE LIGHTS BROKE.

INSIDE THE HOUSES WERE NO BETTER --
THE WALLS PEELED;
THE STAIRS SAGGED;
THE PLUMBING LEAKED.

THE REFUSE GATHERED IN THE GUTTERS BY THE PARKED CARS,
AND IN THE VACANT LOTS - NEWSPAPERS, TIN CANS, AND BROKEN BOTTLES -
THE CHILDREN HAD NO PLACE TO PLAY.

Fade in: 6 Aerial view of the whole neighbourhood. Bright cheerful greens, oranges, reds, yellows.
Crisp and sunlit.

Houses get greyer and greyer.
Here and there a house tries to stay clean; gives up. Use a series of close-ups to heighten the effect. (7 8 9 10)

Cut to: 11 Same as scene 6, but now drab and dirty.
Track appears across screen.
Pause. Train whistle.

The train, a little black worm, roars through.

Factory appears. Smoke pours out.
Sound of clanging, etc.

Fade out.

Fade in: 12 A street scene
Garbage cans, tins, etc. appear. Houses get dirty.

Cut to: 13 Broken side-walk.
Cut to: 14 Street light. Sound of glass breaking. Screen goes black.

Cut to: 15 Broken walls.
Cut to: 16 Broken stairs.
Cut to: 17 Broken plumbing.

Cut to: 18 Automobile parked by curb.
Refuse grows in gutters.
Cut to: 19 Vacant lot. Weeds sprout, refuse collects.

Pan over to disgruntled urchin sitting on the edge of curb.

Pause. Fade out.
SOME OF THE NEIGHBOURS SOLD THEIR HOUSES AND MOVED AWAY. THEY WENT TO NEWER SECTIONS OF THE CITY. JOE THOUGHT OF MOVING WITH THEM, BUT THEN HE DECIDED NOT TO. HE WANTED TO BE NEAR HIS WORK AND NEAR HIS FRIENDS. SO HE STAYED BEHIND.

JOE LOOKED AT HIS HOME, AT HIS YARD, AT HIS NEIGHBOURHOOD. HE REALISED SOMETHING MUST BE DONE ABOUT THEM. BUT WHAT?

IT WASN'T JUST JOE WHO HAD WorRIES, IT WAS THE WHOLE FAMILY. HIS LITTLE GIRL -- AND BOY -- AND WIFE -- AND MOTHER-IN-LAW. THEY WERE ALL UNHAPPY. THEY ALL WANTED SOMETHING ELSE.

THE LITTLE GIRL WANTED A YARD SHE COULD PLAY IN, WITH SWINGS AND SEE-SAWS, AWAY FROM THE DANGER OF TRAFFIC.

THE WIFE WANTED A GARDEN -- NOT A DIRTY OLD BACKYARD LIKE THE ONE SHE HAD -- SHE WISHED THE SUN WOULD SHINE -- SO THAT SHE COULD HAVE HER GARDEN, FREE FROM SMOKE, FREE FROM SOOT.

THE BOY WANTED A YOUTH CENTER WHERE HE COULD GO SWIMMING, AND PLAY GAMES, AND HAVE SOMETHING TO DO ON A SATURDAY NIGHT.

Fade in: 20. Dog, lamps, chairs, etc., outside house. All labeled and ready for shipment.

Camera pans over to Joe. Sad and still. Joe waves hand slowly. Fade out.

Fade in: 21. Aerial view of neighbour- hood. Same as scene 1, but in reverse, i.e., camera starts at house and then moves upward to include the whole neighbour- hood. Pause. Fade out.


As each member of the family is mentioned, he snaps into place. Fade out.


THE MOTHER-IN-LAW WANTED A SHADY SPOT WHERE SHE COULD SIT AND TALK TO HER FRIENDS.

THE WHOLE FAMILY WANTED A PLACE THEY COULD GO TO FOR PICNICS AND OUTINGS. NOT WAY, WAY OUT ON THE ROAD, SNARLED UP BY TRAFFIC -

BUT RIGHT NEAR THEIR OWN NEIGHBOURHOOD SO THAT THEY COULD REALLY ENJOY IT.

WAS ALL THIS POSSIBLE? HERE? IN THIS NEIGHBOURHOOD?

THAT DAY JOE CALLED ON HIS NEIGHBOURS. THEY MUST ALL GET TOGETHER. THEY MUST DECIDE WHAT TO DO.

THEY HAD THEIR FIRST MEETING. AT LAST SOMETHING WAS BEING DONE!

BUT NOT EVERYONE WAS SO ENTHUSIASTIC.

SOME OF THE PEOPLE SAID IT WAS USELESS, IT WAS A POOR NEIGHBOURHOOD THEY LIVED IN, AND IT COULD ONLY GET WORSE. IT WAS SILLY, THEY SAID, TO IMPROVE YOUR HOUSE WHEN ALL THE OTHER HOUSES CONTINUED TO BE SO SHABBY. PRETTY SOON YOURS WOULD ONLY BE THE SAME WAY AGAIN.

ALAS, THEY DID SEEM RIGHT. BUT THEN SUDDENLY JOE GOT AN IDEA. WHAT IF THEY ALL FIXED THEIR HOUSES - WHAT THEN? THE BETTER THINGS GOT, THE MORE THEY WOULD LOOK AFTER THEM! THEY WOULD SIMPLY REVERSE THE CYCLE THAT HAD SPOILT THEIR NEIGHBOURHOOD!

Snap in: 34 .Mother-in-law alone.
Cut to: 35 .Park scene. Shady tree. Bench. Old people reading newspapers, etc. Leaf falls slowly to ground.
Fade out.

Snap in: 35 .Whole family standing in line.
Cut to: 36 .Family driving along in car. All smiling. Trees, &c, whizzing past. Suddenly car stops, shriek of brakes, traffic jam.
Camera swings back to find family sitting down to a picnic under a tree.
Fade out.

Cut to: 38 .Aerial view of neighbourhood. A little dot leaves Joe's house, runs from door to door. Quick, excited.
Fade out.

Fade in: 40 41 42 43 44 45 46 47. These are a series of slow sad shots of the neighbourhood. Pathos can be greatly increased by tilting horizon line, crooked camera angles, etc.

Cut to: 48 49 50 51. These are identical to scenes 7, 8, 9, 10 & 11, but in reverse. That is, the houses get bright and clean again.
SO MANY THINGS COULD BE DONE!
THOSE BROKEN STAIRS, CRACKED WALLS,
AND LEAKY PLUMBING, THEY COULD ALL
BE REPAIRED!

AND IN THE NEIGHBOURHOOD, THOSE EMPTY
LOTS - THEY NEEDN'T BE FULL OF WEEDS
AND BROKEN BOTTLES! WHY, THEY COULD
BE PLACES FOR CHILDREN TO PLAY!

WELL, Y-E-E-S, SOMEONE SAID, BUT WHAT
ABOUT THE UNCOLLECTED REFUSE,
AND THE TRASH IN THE GUTTER,
IT WASN'T THEIR FAULT IT WAS THERE,
WAS IT?
WAS IT? JOE WONDERED.
HOW COULD ANYONE CLEAN THE STREETS
WITH THE CARS IN THE WAY.
MOVE THE CARS -
AND IT'S EASY.

THE SAME WITH THE RUBBISH --
IT SHOULDN'T BE LEFT OUTSIDE HOURS
BEFORE IT WAS TO BE COLLECTED:
IT WAS BOUND TO GET KNOCKED OVER.

THE CORRECT WAY TO DO IT WOULD BE THIS:
THEY WOULD ALL COME TO AN AGREEMENT
WITH THE PICK-UP MAN --
TO PUT THE RUBBISH OUT JUST BEFORE
THE TRUCK CAME ALONG.

THAT WAY EVERYTHING WOULD BE CLEAN
AND NEAT.

OF COURSE, JOE SAID, FOR THIS OR ANY
OTHER PART OF THE PLAN TO SUCCEED,
WE MUST ALL WORK TOGETHER.
LUCKILY, HE ADDED, THAT'S WHERE LAW
ENFORCEMENT COMES IN.
UP IN CITY HALL,
WE HAVE A HEALTH DEPARTMENT.
THEY SEND INSPECTORS AROUND TO
CHECK.
IF CONDITIONS ARE BELOW THE HOUSING
CODE REQUIREMENT, THE INSPECTORS WILL
HAVE THEM CORRECTED.

WELL, OKAY, SOMEONE ELSE SAID, BUT WHAT
ABOUT THE FACTORY AND THE RAILROAD --
WHAT CAN WE DO ABOUT THEM?

Cut to: 52 53 54
Same as scenes 15, 16 & 17.

Cut to: 55 .Same as scene 19, but in
     reverse. i.e. weeds grow
     back into ground; children
     appear, bounce around
     happily, etc.

Cut to: 56 .Woman at meeting. Fed-up.

Cut to: 57 .Same as end of scene 18.
     Car parked by curb,
     tin cans, etc., in gutter.

     Car vanishes.
     So does the refuse.

Cut to: 58 .Rubbish-can standing on
     side-walk. Lid half off, etc.
     Kid on scooter rides by,
     bangs into it.

Cut to: 59 .Close-up of can, knocked over.

Cut to: 60 .Same as scene 58.
This time a garbage van
    drives up, covering the
    whole screen.
Pause. Then it drives on.
Everything clean and neat.

Fade out.

Fade in: 61 .Aerial shot of neighbourhood.
     Same as scene 11.
     Chalk-line quickly encircles
     the whole area.

Cut to: 62 .Shot of City Hall.

Cut to: 63 .Door to Health Department.

Cut to: 64 .Inspector, Only the eye moves.

Cut to: 65 .Condemn sign outside house.
     Fade out.


Cut to: 67 .Shot of factory & railroad.
BEFORE JOE COULD ANSWER, JIM, WHO WORKED IN THE FACTORY, JUMPED UP. HE KNEW THE ANSWER TO THAT ONE! IT WAS SIMPLE. RIGHT NOW, IT WAS TRUE THAT THE SMOKE FROM THE FACTORY FILLED THE WHOLE NEIGHBOURHOOD WITH SMOKE. BUT THEY COULD DO SOMETHING ABOUT IT. THEY COULD USE A SMOKE PREVENTOR. THE IMPORTANT THING TO REMEMBER, JIM SAID, WAS THAT THEY NEEDED THE FACTORY, THEY NEEDED THE RAILROAD. THE FACTORY GAVE THEM JOBS. THE RAILROAD GAVE THEM TRANSPORTATION.

AFTER JIM FINISHED SPEAKING, EVERYONE WAS VERY ENTHUSIASTIC. THEY ALL HAD MANY IDEAS. SOME SAID ROOFS WOULD BE PATCHED, PROPERTY PAINTED. OTHERS THOUGHT THEY WOULD INSTALL NEW TOILETS AND CENTRAL HEAT IN THEIR HOUSES. THE WHOLE NEIGHBOURHOOD WOULD BE CLEANED UP. SIDEWALKS WOULD BE REPAIRED, STREETS PROPERLY LIGHTED. TRASH AND LITTER PUT BACK IN THEIR PROPER PLACES. WHEN AN OLD HOUSE WAS TORN DOWN, IT NEED NOT BE REPLACED BY ANOTHER - PERHAPS THE LAND COULD BE USED AS A TOTLOT WHERE CHILDREN COULD PLAY.

PRETTY SOON THEIR NEIGHBOURHOOD WOULD BE SPIC AND SPAN - AS FINE A PLACE AS WHEN THEY FIRST MOVED IN.

BUT HOW COULD ALL THIS BE DONE?

THEY MUST ALL GET TOGETHER. JUST AS THEY HAD DONE TONIGHT. NOT JUST A FEW - BUT EVERYONE. TOGETHER THEY WOULD FORM A NEIGHBOURHOOD ASSOCIATION. TOGETHER THEY WOULD WORK TO MAKE THEIR NEIGHBOURHOOD A BETTER PLACE TO LIVE IN.
WHAT JOE AND HIS FRIENDS ARE DOING IS GOOD NOT ONLY FOR THEM, BUT FOR THE WHOLE CITY AS WELL. SUPPOSE THIS ORANGE SQUARE REPRESENTS A CITY. WHAT HAPPENS WHEN A NEIGHBOURHOOD GOES BAD? IT IS IMMEDIATELY REPLACED BY A NEW SUBURB ON THE OUTSKIRTS. THIS HAPPENS AGAIN AND AGAIN. THIS IS HOW A CITY GROWS.

BUT THIS IS VERY WASTEFUL. IF WE DO WANT ADDITIONAL HOUSING, WHY DON'T WE REHABILITATE SOME OF THE AREAS THAT ARE SLIPPING RIGHT WITHIN THE CITY? INSTEAD OF ABANDONING AND MOVING ON, WE MUST STAY AND CONSOLIDATE. WE MUST REVERSE THIS CYCLE OF WASTE!

(Clock starts to tick in background.)

LOOK AROUND OUR CITIES AND TOWNS TODAY. THEY NEEDN'T BE THE WAY THEY ARE -- THEY COULD ALL, EVERY ONE OF THEM, BE FINE PLACES TO LIVE IN, PLACES WE COULD BE PROUD OF........ IF WE WOULD WORK, LIKE JOE AND HIS FRIENDS.

Fade in: 86 An orange square.

Little black area appears on the orange. Replaced by an identical new orange area outside the square. Process repeated several times.

Black areas start to disappear.

All that is left is a clean fresh pattern of orange and white.

Fade out.

Fade in: 87 Aerial view of backyards, same as scene 1. Starting with Joe's house, camera pans vertically up towards horizon line.

Cut to: 88 Panning shot of skyline.

Pause.
Against the sky appear the letters: 
THE END.
ANIMATION TECHNIQUES.

There are many different types of animation, and each has its own advantages and disadvantages. More important yet, each has its own mood.

Animation is at its best when this is understood, and the essential motion is simply and incisively communicated.

The following is a list of the techniques used in this film, together with a discussion of the advantages and mood which I felt each one conveyed.
1. Movement of camera over drawings:

This is really the simplest form of animation, and one of the most effective. It is of two basic types: panning, i.e., moving parallel to the drawing; and zooming, i.e., moving towards, or away from, the drawing.

Panning: At its best when the camera moves deliberately and searchingly over a scene, creating great mood and pathos. It is used very much today in films dealing with sculpture and painting. Used here in the opening sequence—scenes 1, 2, 4, and 5.

Zooming: a. Towards the drawing. For dramatic emphasis. As towards a newspaper headline, or a $1000 reward for Buffalo Bill. In the case of this film, scene 1, when the camera closes in on Joe's house, selecting it, so to speak, from the whole neighbourhood.

b. Away from the drawing. e.g. scene 21. From the particular to the general; Joe's problems are not only his own—they are shared by the whole neighbourhood.

2. Displacement of image on acetate:

Simple and incisive. At its best when only the essential movement is conveyed. e.g. scene 3. Here the movement of the eyes, severely simple, exactly coincides with the mood of the narrative "...was it the neighbours? was it the factory? was it ....himself?"

Another example: scene 11, where the train (a simple black rectangle) scoots across the screen. Again, the essential motion.
3. Partial replacement:
   a. add on: Here the drawing is completed right under the eye of the camera (and the absolutely staggering heat of the floodlights). Examples: the garden growing in scene 29, or the refuse collecting in scene 18. The effect is quick, startling, and extremely lively.

   b. scratch-off: The opposite, of course. This technique is most effective when we want something to grow easily and continuously on the screen - for instance a graph line. It would be impossible to make this "grow" smoothly with a series of short strokes. The thing to do is to start with the completed graph, and then scratch it off, bit by bit; afterwards, the whole sequence is projected backwards. This was used in scene 61.

4. Total Replacement of Cells:
What most people think of when they think of cartoons. This is the way Hollywood does all its animation. It is the most complete and expressive method. It is also the most expensive and requires the greatest degree of mechanisation.

Here each change in movement is drawn on separate pieces of celluloid (hence the term "cells") and these are then photographed, one frame at a time. Any kind of effect imaginable can be obtained here. Available, of course, only at that price. Most amateurs, therefore, can use it only very sparingly.

Examples: scenes 33, when the feet dance; and scene 75, when the woman speaks. In both cases, however, it was done very simply and
economically. In scene 75, only three positions of the woman's mouth were drawn, and these were interchanged very rapidly, to emphasise her talkativeness. In scene 33, only two cells were drawn, each with two pairs of shoes. By skilfully varying their relative position (interchanging, reversing, etc.) a very vigorous rhythm was achieved. Note that both scenes called for quick vigorous animation. To achieve a smooth and steady movement by this method calls for effort a thousand times more back-breaking. (A good indication, perhaps, that we are fighting against the medium, not working with it!)

In addition to the above, the following two methods should be mentioned. Strictly speaking, neither is cartooning according to Hoyle - but psychologically, I feel, they are just as effective as any other.

5. Sound:

i.e., to make the mind see via the ear. In scene 11, the words "... the Lights broke" combined with the sound of glass shattering and the screen going black, is all that is necessary to complete the illusion. To achieve such strong effects through such simple means is really a pleasure.

6. Editing:

In Hollywood you don't have to act, you just get a good editor. A series of quick shots from window, to full moon, to creaking stair, can tell a story far more powerfully than any words can. Or cartoons, for that matter. For example, the whole sequence from scene 61 to scene 65 is based almost completely on very fast-paced editing. A story is told in a succession of quick images - so strong and suggestive that the lack of movement within each one is completely unnoticed.
APPENDIX

Two suggestions in retrospect.

This is the proper professional procedure in cartoon-making: first, the sound-track is recorded in its entirety, and then the image is drawn and photographed to match. I learned of this only too late. When I started making this movie, I was under the usual amateur notion that the sound and the image are equally important; and, were a conflict to arise, it is the image that would be the decisive factor. This is not true at all. Nothing is so dead as an empty sound-track. The image, on the other hand, can always be pruned or spliced to fit. It is imperative, therefore, to record the sound-track first.

The other point concerns the editing room. Editing is the most important and least understood part of movie-making. An editor can make or break a movie. It makes all the difference in the world if you happen to see an image on the screen for five seconds, instead of one, or instead of ten. Mr. Ballantine, of the Dekko Film Productions, often says that one really does not know a thing about movie-making until one has learned to edit. He's very right. The best way to learn, really, is to sit through a movie-programme twice. The first time, just try and assimilate the atmosphere and quality of each scene; the second time, count the seconds.
Spottiswoode, Raymond: *FILM AND ITS TECHNIQUES*.