

APPENDIX

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"ARTISTIC ANALYSIS"

WRITE MUSIC TO IMAGES
WITHOUT IMAGES. CREATE AN ALPHABET
MY PLAN FIRST WAS TO A RESEARCH
ABOUT COMMUNICATION IN ART.

—> MOVIE —> MOVIE DIRECTOR

AFTER READING
A LITTLE ABOUT
MUSIC IN
ENVIRONMENT
WE WOULD
BE ABLE
TO DETERMINE
ALL THE
COMPONENTS

ANALYSIS OF A SEQUENCE
WITH A PLUGIN, PERHAPS
WITH TRACK MOTION

EXAMPLES OF TRACK PLAYED
ONLY BASED ON TRACK
MOTION SCHEMES.

WHAT WOULD THE TRACK MOTION DO?

AFTER STUDY THE CONNECTION
BETWEEN MUSIC AND MOVEMENTS
WE COULD ANALYZE SCENES MOVEMENT
AND ADD THEM TO OUR ALPHABET

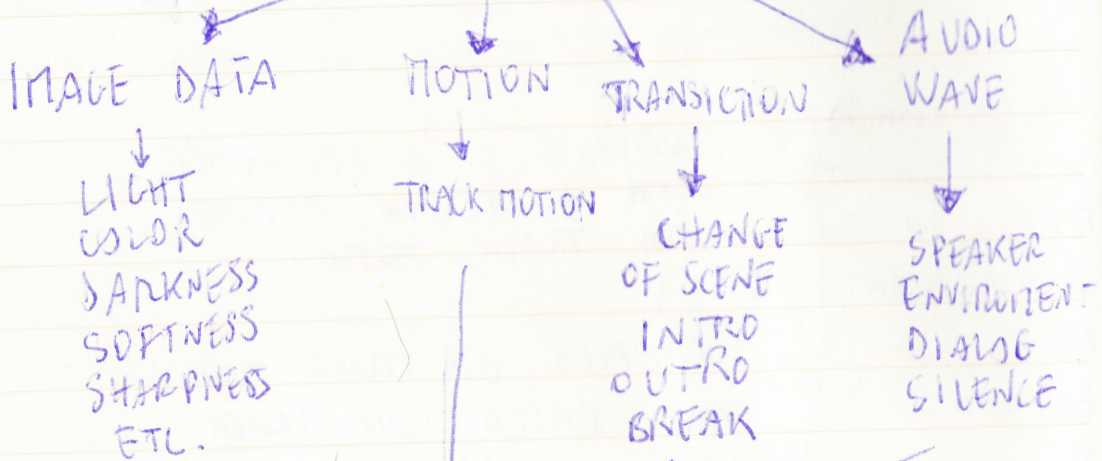
TRACK MOTION IS THE ANALYSIS OF ^{THE MOVEMENT} WHAT
THE CAMERA DOES COMPARED TO A SUBJECT.

ONE OTHER THING THAT COULD BE ANALYZED
IS THE LIGHT.

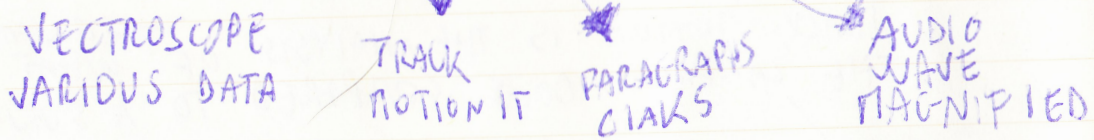
THE THEORY OF RANDOMNESS

MOVIE SCENE

WHAT CAN BE TECHNICALLY ANALYZED? (THAT CAN BE TURNED INTO ART)



HOW DO WE ANALYZE???



- A DEEP ANALYSIS AND RESEARCH WILL EVENTUALLY MODIFY, CHANGE, DELETE THE COMPONENTS.

SO NOW
30
THE
AND
THE
DE
IMAGE
TRACK
MOTION
TRANSITION
AUDIO WAVE
MAGNIFIED
(SILENCE
CAN BE
CALLED)
- THE
THAT
ARTIST
WHAT
AND SIL
BE EX

SO NOW LET'S TAKE A SHORT COMMERCIAL OF 30 SECONDS.

THE VIDEO EDITOR HAS EDITED THE VIDEO AND INSTEAD OF GIVING US REFERENCES - HE GIVES US THIS ?



Figure 1

WHAT DO WE DO WITH IT?

- THE NEXT STEP IS TO FIND AN ALFABET THAT WOULD INTERPRETATE THESE SIGNALS ARTISTICALLY. IT'S HOW A TV WORKS, BUT BACKWARD.

↓
SO THE NEXT QUESTION IS.

WHAT IS MUSICALLY FOR US IMAGE, MOTION, CHANGE AND SILENCE, AND WHAT OTHER ASPECTS COULD BE EXTRAPOLATED FROM AN IMAGE TO BE ABLE.

WE COULD DO A FAST EXAMPLE:

IMAGE DATA: LIGHT → LIGHT COULD MEAN (wavy line) HAPPINESS
DARK → (wavy line) COULD MEAN SUSPENSE.
SOFT → (wavy line) COULD MEAN HOPE
BRIGHT → (wavy line) COULD MEAN MORNING.

THE MOST INTERESTING FACT IS THAT DURING THIS PROCESS THERE'S GONNA BE ALSO A DIFFERENT INTERPRETATION OF EACH WAVE OF AN IMAGE FOR EACH INDIVIDUAL TESTED.

FOR THIS EXPERIMENT THOUGH WE WOULD NEED TO CREATE OUR OWN ALPHABET AS IF IT WOULD BE THE "STANDARD".

LET'S KEEP GOING:

<u>TRACK MOTION: MOTION</u>	
TRIDIMENSIONAL	- TO ANALYZE
VERTICAL	- WHAT REVEALS A VERTICAL SHOT
HORIZONTAL	- WHAT REVEALS AN HORIZONTAL SHOT
PANNING	- WHAT EFFECT DOES PAN GIVE
RANDOMNESS	- WHAT EFFECT
STEADINESS	- STUCK IN TIME
CURVE	- COMING FROM SOMEWHERE
PAST	- RUNNING
SLOW	- SLOW MOTION
STRESS	- FAST MOVEMENTS
TRACKING	- EPIC MOVEMENTS

↓
MORE TO ADD:

Figure 2

AT THIS MOMENT ~~ON~~ ~~ON~~ A DEEPER ANALYSIS URGES TO BE DONE. WE NEED TO UNDERSTAND WHAT MOVEMENT AND NON MOVEMENT MEANS FOR REAL IN AN IMAGE, AND HOW DO WE TAKE IT AND HOW CAN THE MUSIC CAN AFFECT IT. SO LET'S RECAPITULATE AND RE-ANALYZE.

1. VERTICAL MOVEMENT

UP TO DOWN

DOWN TO UP

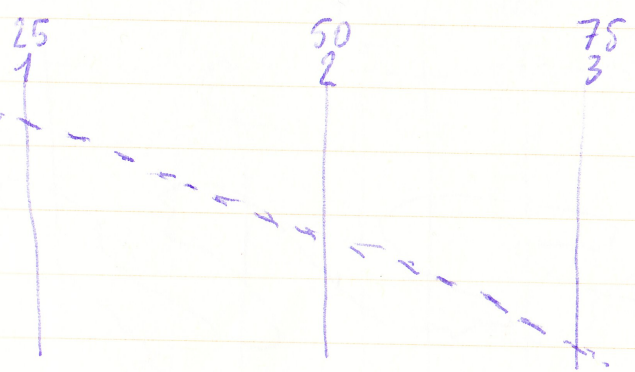
MEANING: REVEILING WHERE WE ARE?
(EXAMPLES)

LOOKING UP TO THE SKY AND THE MOVIE IS FINISHED

TRANSLATE IT, MUSICALLY
A SCALE THAT HAPPILY WOULD SHOW US AN EARLY MORNING IN A SMALL TOWN.

MUSIC SOUNDS OUTRO MUSIC CHANGES INTO AN EPIC FINAL

VERTICAL MOVEMENT ON OUR GRAPHIC WOULD BE PRESENTED LIKE THIS IN A SCENE OF 3 SECONDS (25FPS)



IN THE TRACK NOTION ACTUAL TRACKING IT WILL PROBABLY LOOK LIKE THIS

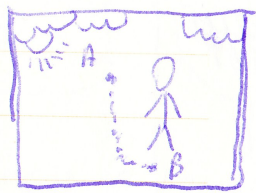
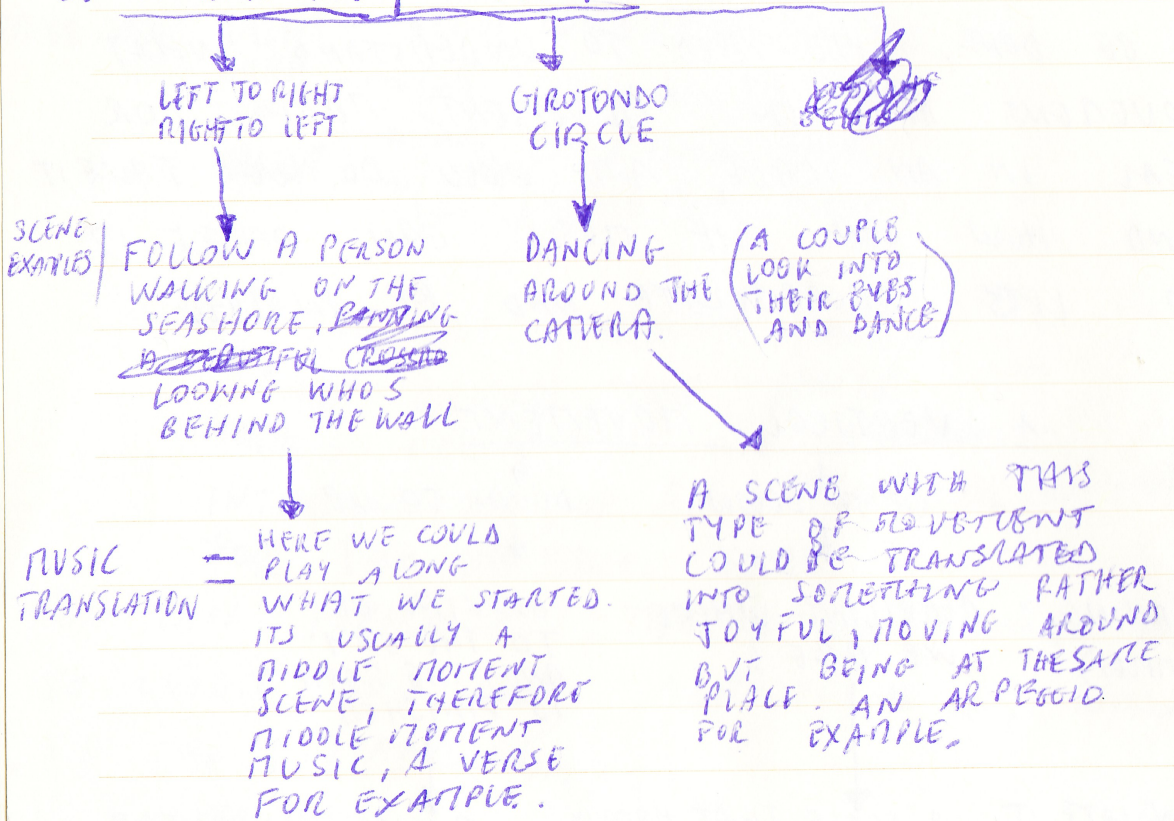


Figure 6

2. HORIZONTAL MOVEMENT



HORIZONTAL MOVEMENT ON OUR GRAPHIC WOULD LOOK LIKE THIS

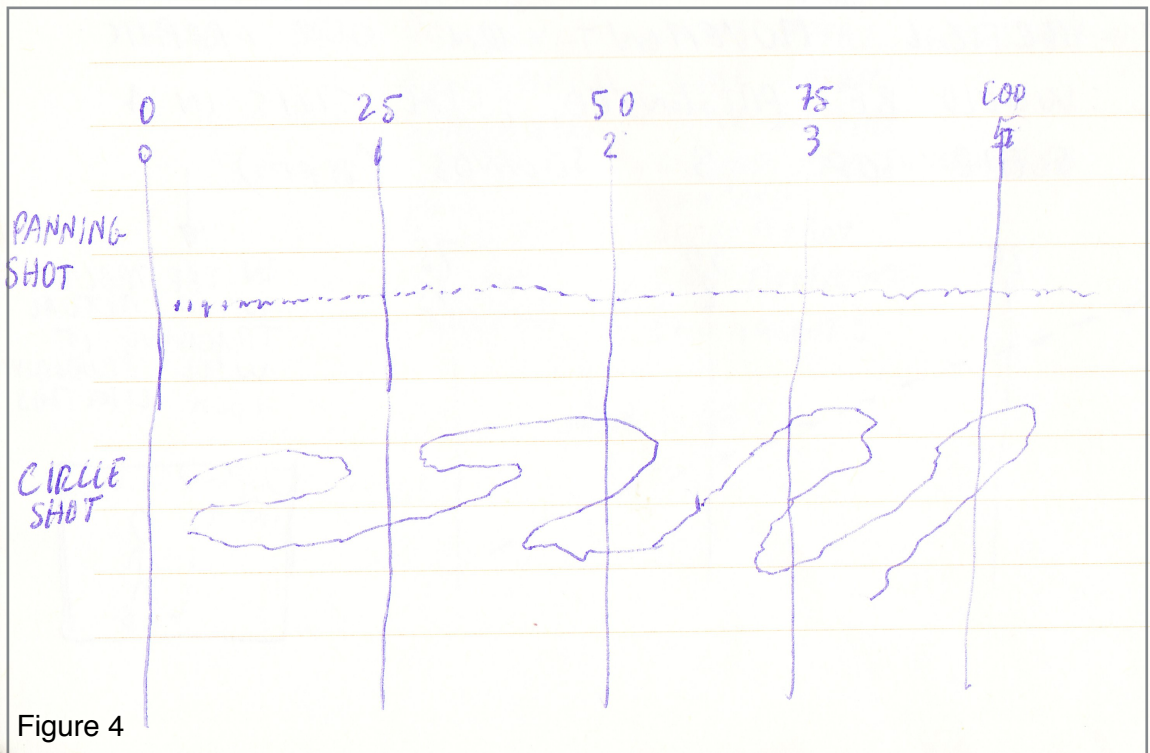
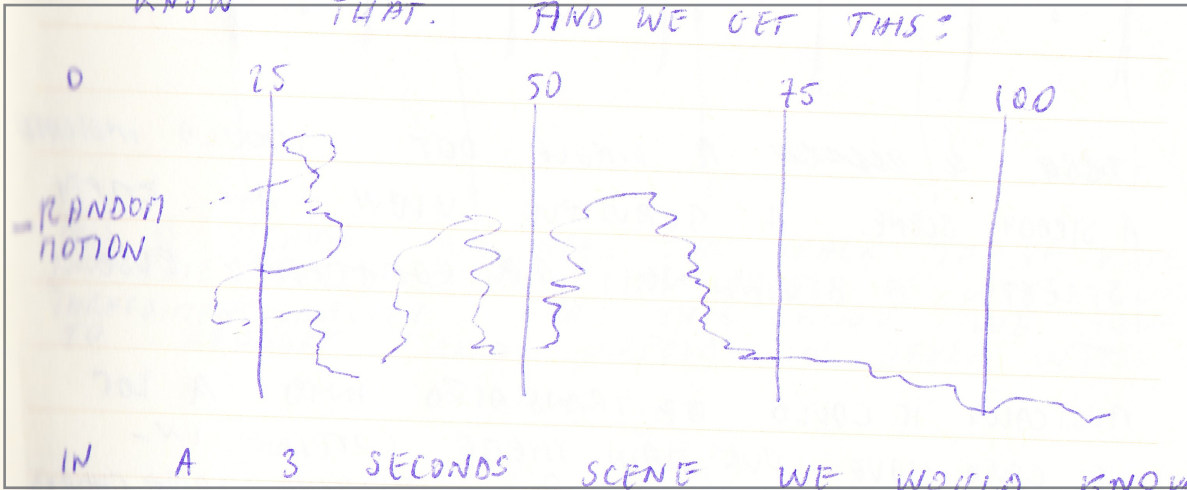


Figure 4

RANDOM MOTION

- LET'S SAY THE VIDEO EDITOR TOLD US THAT THE VIDEO IS ABOUT A GUY WALKING IN A FOREST. OR EVEN IF WE DON'T KNOW THAT. AND WE GET THIS:

Figure 5



IN A 3 SECONDS SCENE WE WOULD KNOW DIRECTLY THAT EITHER THE CAMERA^{OR}MAN HAS ~~LOST~~ HIS CAMERA OR THE FLOOR, OR MOST PROBABLY THERE IS SOME KIND OF STRESS IN THE IMAGE MUSICALLY WE WOULD TRANSLATE INTO AN INTERLUDE FOR EXAMPLE, A FAST CHANGE OF CHORDS, A RIFF, A MOMENT OF FAST MOVEMENT.

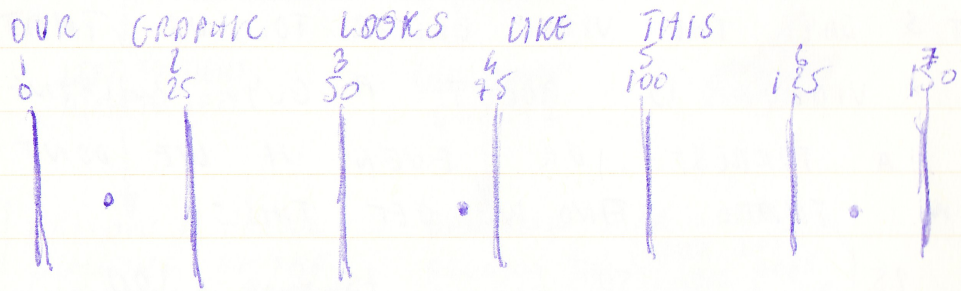
NOW LET'S SAY OUR GRAPHIC LOOKED LIKE THIS



THE RANDOM MOVEMENT OF MOTION OVER A LONGER PERIOD OF TIME WOULD INDICATE US THAT THERE IS DEFINITELY DYNAMIC IN THE SHOT BUT NOT AS STRESSY AS BEFORE

Figure 6

- STEADYNESS



- THESE & ~~REMOVE~~ A SINGLE DOT WOULD INDICATE A STEADY SCENE. A BEAUTIFUL VIEW, AN EARLY STREET. A BEGINNING OF SOMETHING ELSE.

MUSICALLY IT COULD BE TRANSLATED INTO A LOT WE COULD HAVE OUR MAIN THEME COMING IN - WE COULD HAVE A SOFT PAD PLAYING LONG CHORDS IT ALSO DEPENDS WHERE IN THE STRUCTURE THESE MOMENTS WILL BE. IT COULD ALSO BE SILENCE FOR EXAMPLE.

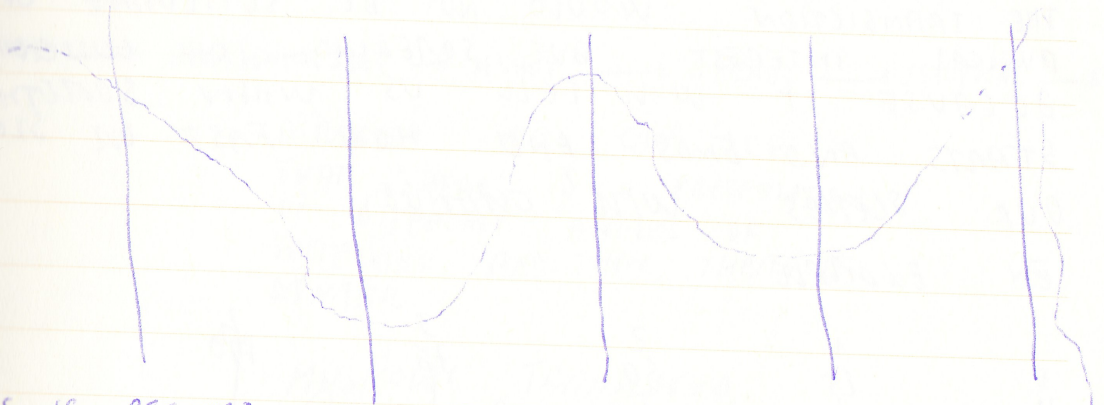
WHAT THERE IS ALSO TO ANALYSE FURTHER IS HOW WE WOULD UNFOLD IN OUR GRAPHIC THE MOVEMENT OF THE TRACK MOTION, SINCE THE TRACK MOTION IS ANALYSED IN TIME REFERRING TO A POINT ZERO IN THE IMAGE, WE HAVE TO FIND A WAY TO UNFOLD THE TRACK ON A TIMELINE.

HOW IT WOULD LOOK ON THE LAST FRAME OF 3 SECS SHOT.



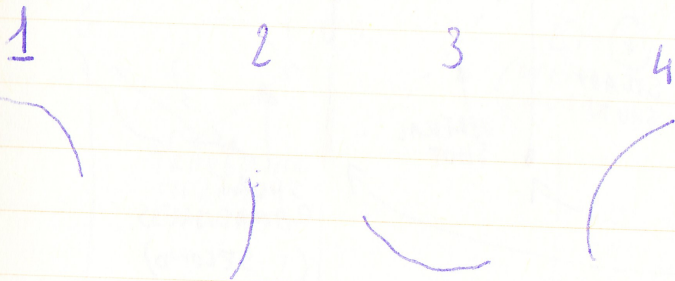
UNFOLDING¹¹
THIS:

THE MOTION TRACK WE GET SOMETHING LIKE

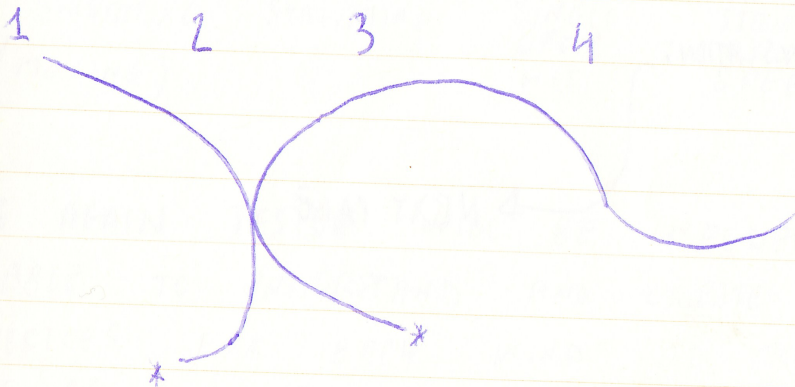


THIS IS BECAUSE WE NEED OUR TRACK TO BE VISIBLE
IN TIME BUT DOING LIKE THIS WE LOSE OUR
THREEDIMENSIONALITY, FOR THIS REASON WE HAVE
TO READAPT AND UNFOLD IN OTHER WAYS.

↑
THIS MOVEMENT
COULD BE VERTICAL
OR FORWARD AND
OPPOSITE



THAT WE CONNECT



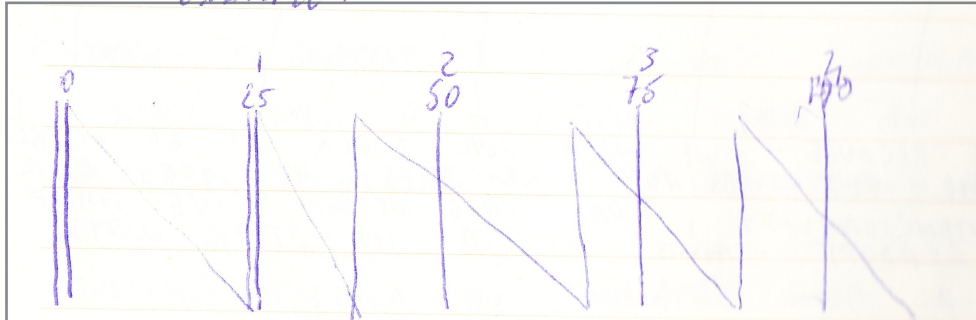
A CUT OF THE MOTION WILL INDICATE
AN OVER CROSS OF ITSELF.

- TRANSITION -

- THE TRANSITION WOULD NOT BE SOMETHING OF MUSICAL INTEREST BUT SOMETHING OF GUIDANCE BECAUSE IT WILL TELL US WHEN SOMETHING STARTS AND ENDS AND HOW FAST OR SLOW OUR SCENES WILL CHANGE.

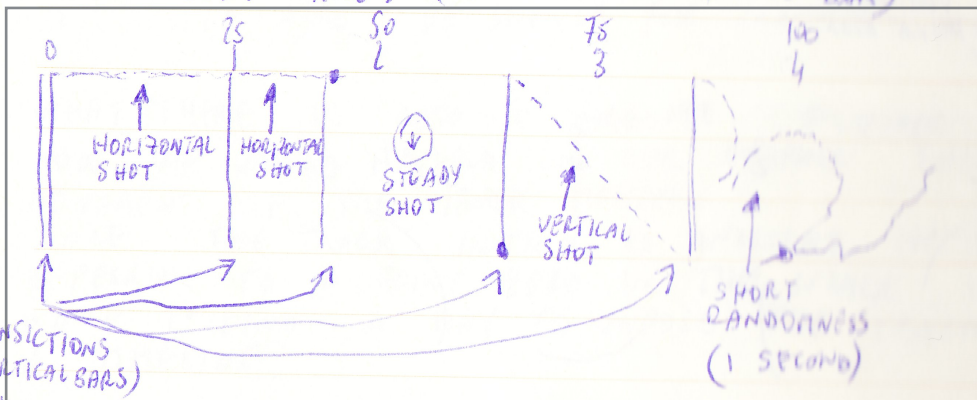
AN EXAMPLE:

Figure 7



EVENTUALLY THE DIAGONAL LINE WILL BE SUBSTITUTED WITH THE TRACK MOTION DATA, IT COULD THEN LOOK LIKE THIS: (TAKING AWAY SECONDS BAR)

Figure 8



WHAT DO WE HAVE HERE? MOVIE STARTS - HSHOT - HSHOT - STEADY - VERTICAL - RANDOM

MUSIC TRANSLATION:

→ NEXT PAGE

IN A 4 SECONDS SCENE THIS HAPPENED

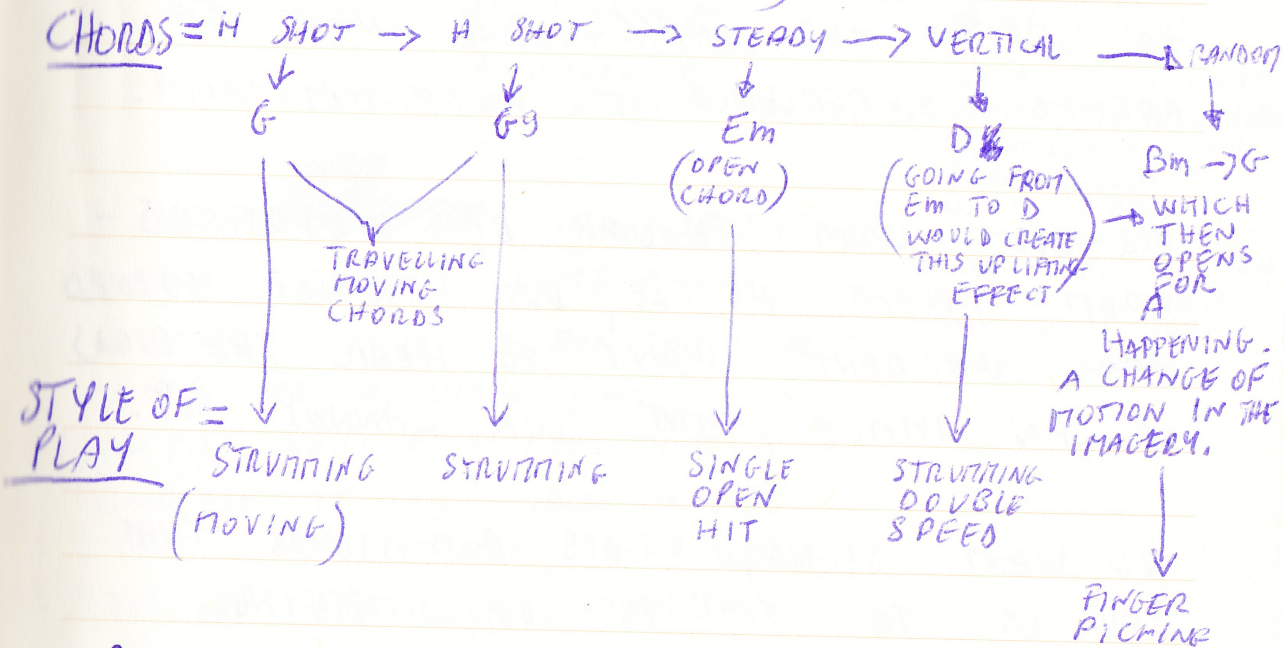
START → HORIZONTAL SHOT → H SHOT → STEADY → VERTICAL → RANDOM

DIRECTLY WE CAN SEE THAT THERE IS A PRESENTATION OF DIFFERENT ANGLES OF SOMETHING AND THEN THERE IS DYNAMIC.

MUSICALLY TRANSLATED

IF OUR MUSIC WAS DOING G - Em - Bm WE CAN EVEN TAKE HARMONIC CHOICES, WHICH IN THIS CASE WOULD BE:

(EXAMPLES)



ONCE AGAIN TESTED WILL BE NEEDED FOR TO BE ABLE TO UNDERSTAND AND CREATE MUSICAL PROPERTIES FOR EACH KIND OF MOVEMENT. SINCE, AS SAID, THIS COULD ALSO BE SOMETHING RATHER SUBJECTIVE.

ANOTHER PROPERTY THAT COULD BE ANALYSED IN VIDEO, NOT IN STILL IMAGE, IS THE AUDIO DATA. WHY? BECAUSE IF AN IMAGE HAS BEEN CAPTURED BY A VIDEOGRAPHER AND HE THINKS THAT THE BACKGROUND SOUND OF THE WATERFALL IS PART OF THE SHOT, WE, AS MUSIC COMPOSER, NEED TO BE AWARE OF THAT.

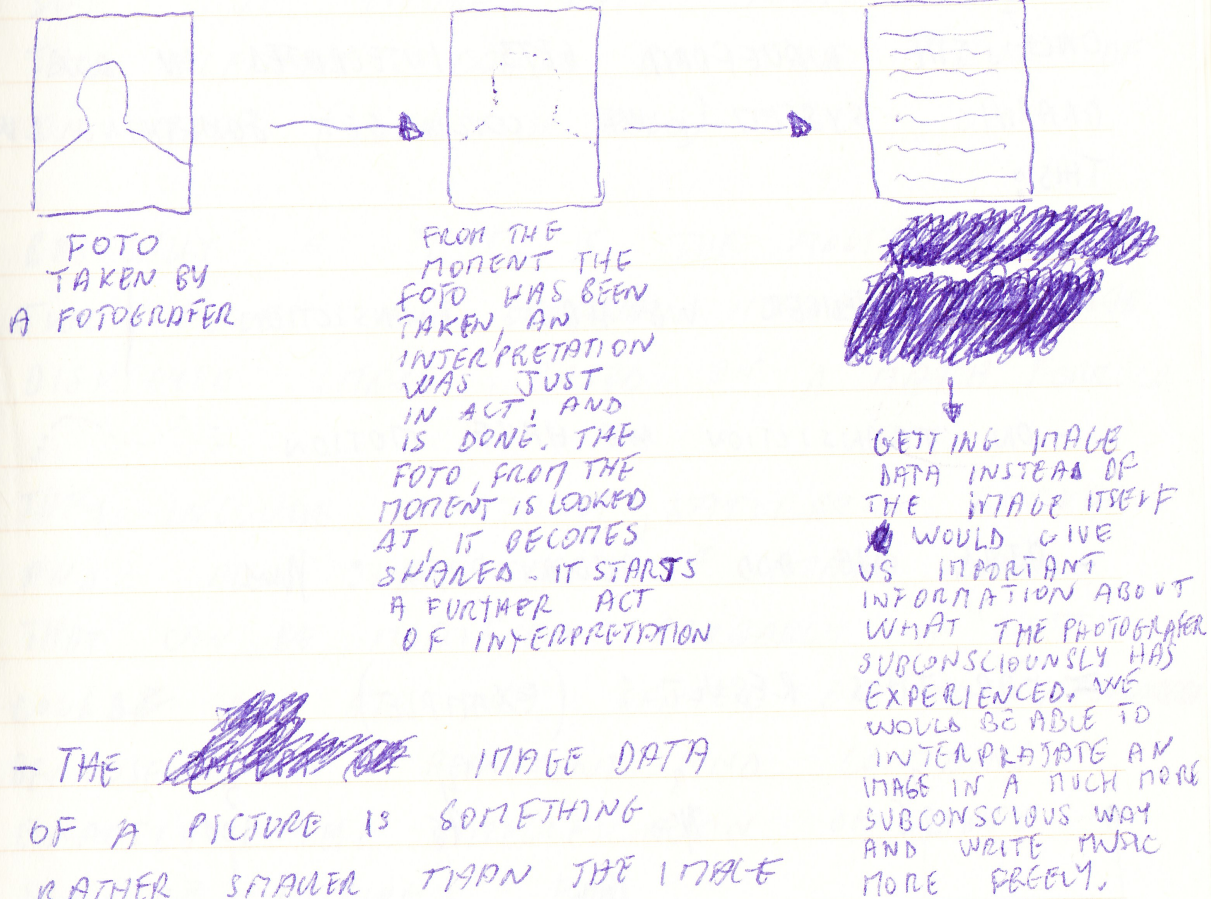
IF WE RECEIVE A VIDEO SHOT THAT HAS A SPEAKER VOICE THAT TALKS ABOUT LOVE, THEN WE NEED TO BE AWARE OF THAT.

REMEMBER THAT WE'RE TRYING TO USE A SENSE THROUGH ANOTHER SENSE, AND WE DON'T WANT TO WATCH THE IMAGE. WE WANT TO RATHER EXPERIENCE IT ALTERNATIVELY.

WE DON'T WANT THOUGH BE INFLUENCED FROM WHAT WE SEE, BUT RATHER GUIDED AND WE DON'T WANT TO HEAR THE BIRDS OF AN IMAGE THAT WE CANNOT SEE.

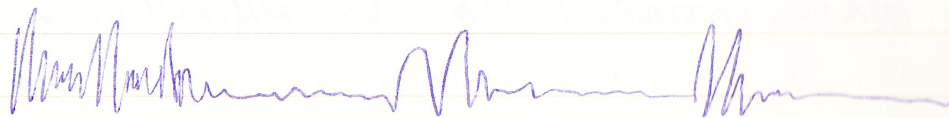
WE WANT SIGNS, GUIDES AND LIGHTS THAT TELL US TO TRY TO SEE SOMETHING. THE WHOLE RESEARCH IS ABOUT THAT MOMENT OF HUMAN INTERPRETATION OF SENSES

IS ABOUT FINDING THE MAIN LINE
DIVIDES WHAT WE SEE, HEAR, TOUCH ETC., FROM
WHAT WE INTERPRETATE, PERCEIVE, AND THEN
LET OUR INTERPRETATION GO FREELY WITH.



- THE ~~CONCEPT~~ IMAGE DATA
OF A PICTURE IS SOMETHING
RATHER SHARPER THAN THE IMAGE
DATA OF A VIDEO SHOT.
IN THE NEXT PAGES I AM GOING TO
ANALYZE IF STILL IMAGE IN THIS
CASE ITS SOMETHING WE WANT
TO USE FOR OUR ANALYSIS.

GOING BACK TO THE AUDIO WAVE OF A VIDEO,
THE DATA ON A GRAPHIC WOULD BE SHOWN AS
A SIMPLE WAVE FORM.



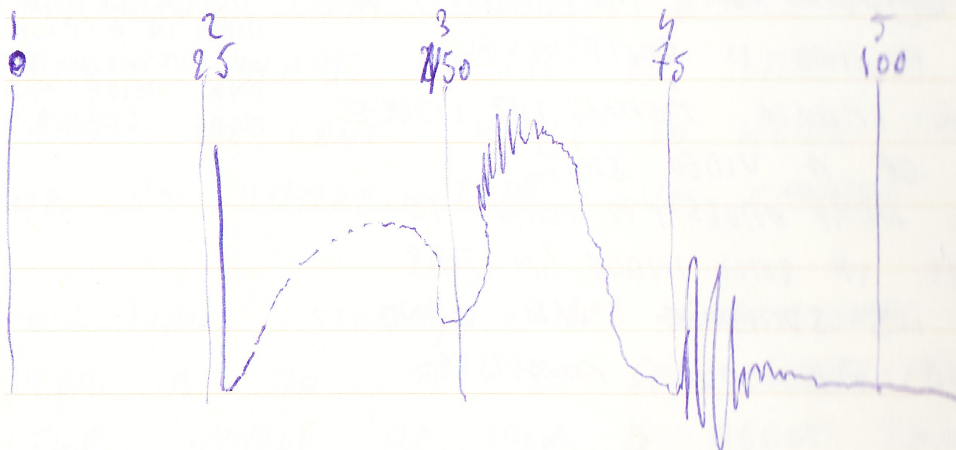
ONCE THE WAVEFORM GETS INTEGRATED IN DDR
GRAPHIC SYSTEM, WE COULD GET SOMETHING LIKE
THIS:

- NOW, REMEMBER WE HAVE TRANSITION: |

- ON TRANSITION WE HAVE MOTION: ~~~~~

- HERE WE ADD AUDIO DATA: ~~~~~

= FOR THIS RESULT: (EXAMPLE)



WE HAVE COMBINED EVENTUAL AUDIO DATA INTO
MOTION AND TRANSITION. WE ARE STILL IN THE
PROCESS OF WRITING OUR ALFABET.

ONCE THINGS WILL BE MORE CLEAR WE WILL

BE ABLE TO
DESCRIBE
ALL THE GRAPHICAL
COMPONENTS.

LETS GO BACK INTO ACTUAL IMAGE DATA.

HISTOGRAMS, VECTORSCOPE, ETC.

WE HAVE THE POSSIBILITY, AND THIS WILL BE TAKEN INTO FURTHER RESEARCH, TO MAYBE ADD A PROPERTY TO OUR SET OF IMAGE DATA PROPERTIES. THIS ELEMENT COULD BE THE "LUT" OF AN IMAGE. (LOOK UP TABLE)

BASICALLY A "LUT" IS THE MODIFIER BETWEEN TWO IMAGES, THE ORIGINAL IMAGE AND THE DISPLAYED IMAGE, BASED ON A MATH FORMULA.

THEY INCLUDE CONTRAST, SATURATION, CURVES AND ALL THE TYPE OF IMAGE DATA THAT CAN BE MODIFIED. PROBABLY A "LUT" COULD BE AT THE CENTER OF THIS RESEARCH BECAUSE THEY REPRESENT AND CONTAINS EXACTLY THE SIMPLIFICATION OF DATA WE'RE LOOKING FOR.

SO FOR EXAMPLE, WE COULD GET THE "LUT" DATA IMAGE OF A VIDEO AND HAVE ALREADY A BIG GUIDE TO HOW CONTRASTY THE IMAGE WOULD BE, FOR EXAMPLE OR HOW COLD OR WARM IS THE IMAGE, AND FROM THERE, INTERPRETATE MUSICALLY.

IN DEEPER ANALYSIS, THE HISTOGRAM OF A DARK PICTURE LOOKS LIKE THIS:



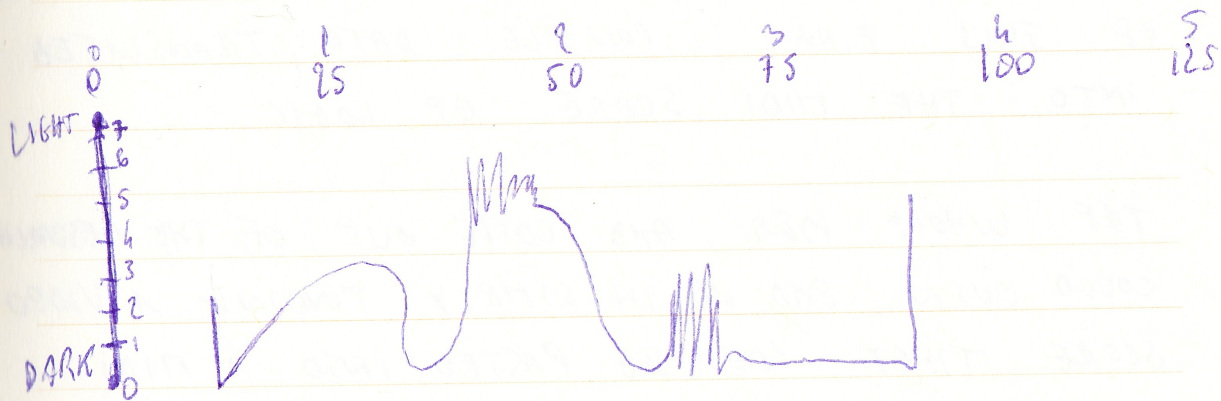
COMPARING THE LOW END ~~TO~~ OF AUDIO FREQUENCY TO THE DARKNESS OF THE LOWER PART OF THIS DATA, TELLS US ALREADY THAT WE HAVE A DARK IMAGE, MAYBE NIGHT, MAYBE SHADOWED.

SINCE HISTOGRAM CHANGES IN TIME, IN A VIDEO, WE WILL HAVE TO ANALYZE THE PEAKS AND LOWS OF A WHOLE VIDEO AND CREATE STATISTIC

ANOTHER WAY THAT THIS COULD BE DONE, SO THAT THIS PARAMETER WILL BE ACTUALLY VISIBLE ON OUR FUTUREISTIC PENTAGRAM, IS TO ADD THE HISTOGRAM IN THE VERTICAL SECTION OF OUR PENTAGRAM.

THE ONLY THING WE WOULD HAVE LEFT TO INCLUDE IN OUR PENTAGRAM, IS THE PARAMETER OF COLOR. WE WILL TAKE THAT IN THE NEXT CHAPTER.

SO LET'S TRY TO ADD HISTOGRAM.



(WE TAKE THE EXAMPLE SHOT FROM 2 PAGES AGO.)

①

= NOTE THE FIRST TRANSITION IS IN THE LOWER SPECTRUM OF LIGHT AND THE NEXT TRANSITION IS A LITTLE HIGHER. THIS WON'T REALLY TELL US MUCH IN A 2 SEC SCENE ANALYSIS, BUT ON A BIGGER LOOK AT THE FINAL COMPOSITION WILL AT LEAST TELL US THE GENERAL "LIGHT" IMAGE DATA OF THE WHOLE SHOT.

↓
EXAMPLE

0 30 SECS
Zoomed out 200%

↑
THE TRANSITIONS SHOW US THAT THIS SHOT IS PRETTY DARK FOR THE WHOLE 30 SECS. WE WILL TRANSFORM LIGHT DATA INTO MUSIC.

THE MOST INTERESTING TWIST I HAVE ENCOUNTERED SINCE I STARTED THIS RESEARCH IS THE THOUGHT OF THIS FINAL POSSIBLE DATA, TRANSLATED INTO THE MIDI SCORE OF LOGIC.

THE WHOLE IDEA AND CORE OUT OF THE RESEARCH COULD EVEN END UP IN SIMPLY FINDING A VIDEO SCORE THAT COULD BE PASTED INTO A MIDI SCORE.

EVEN FURTHER, THE ANALYSIS OF IMAGE DATA COULD ALSO BE RESEARCHED AND TRANSLATED INTO ACTUAL ~~DATA~~ AUDIO EFFECTS, MORE THAN THE MUSIC ITSELF, OR PERHAPS, FORGET THE COMPOSITION AND FOCUS ON: INTERPRETATION OF IMAGE DATA, TRANSLATED INTO MIXING CHOICES AND TECHNIQUES.

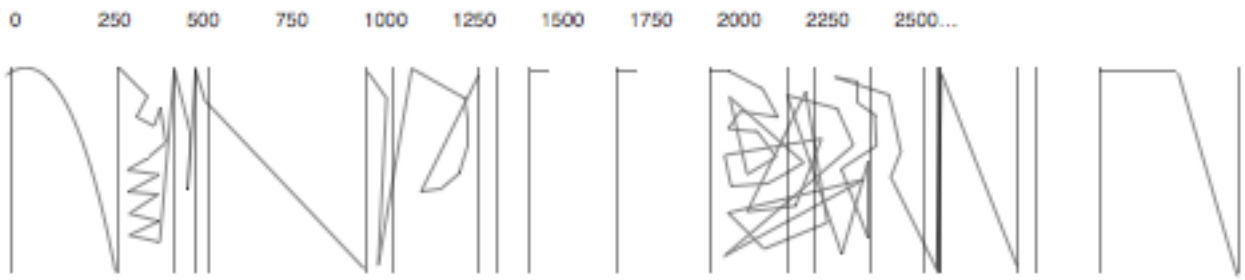


Figure 9

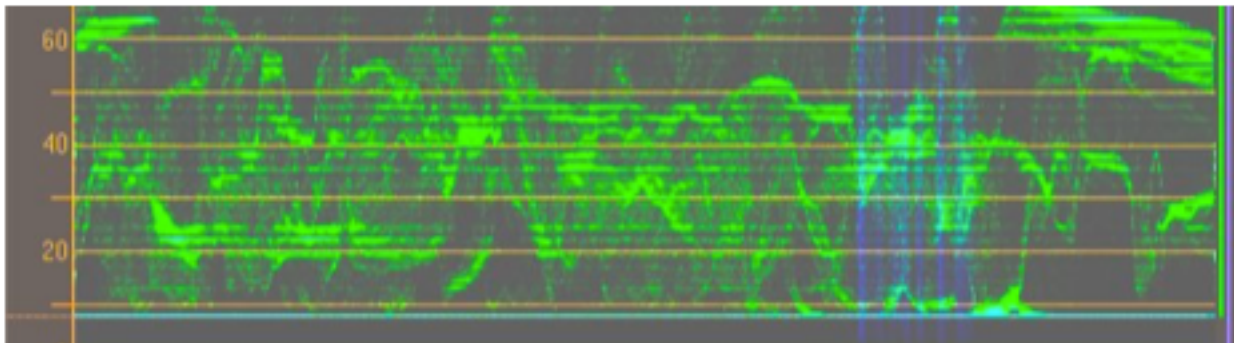


Figure 10 & 11

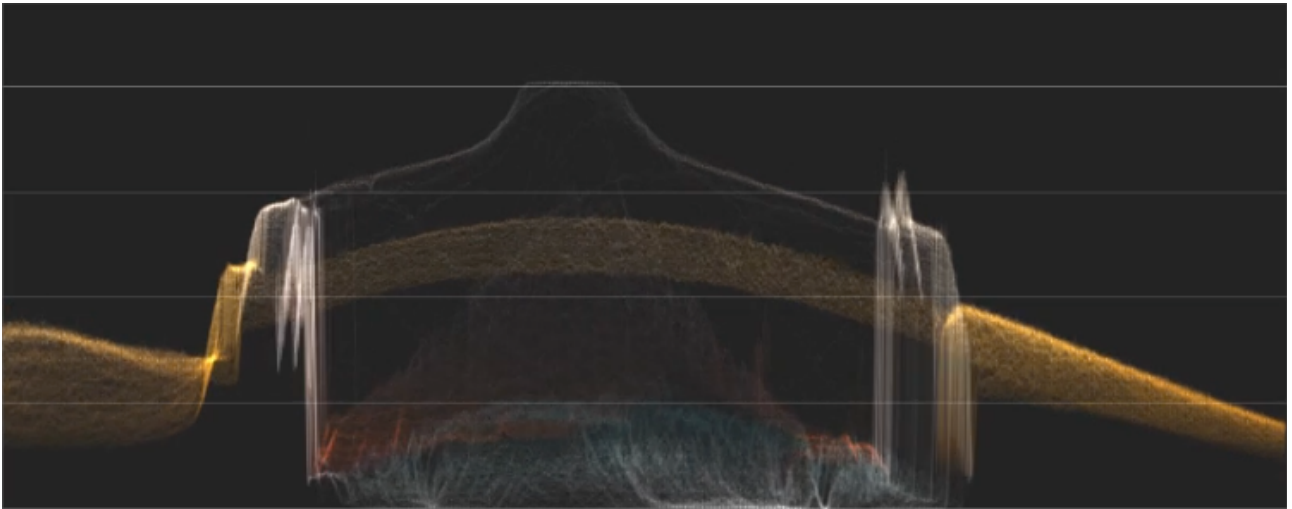
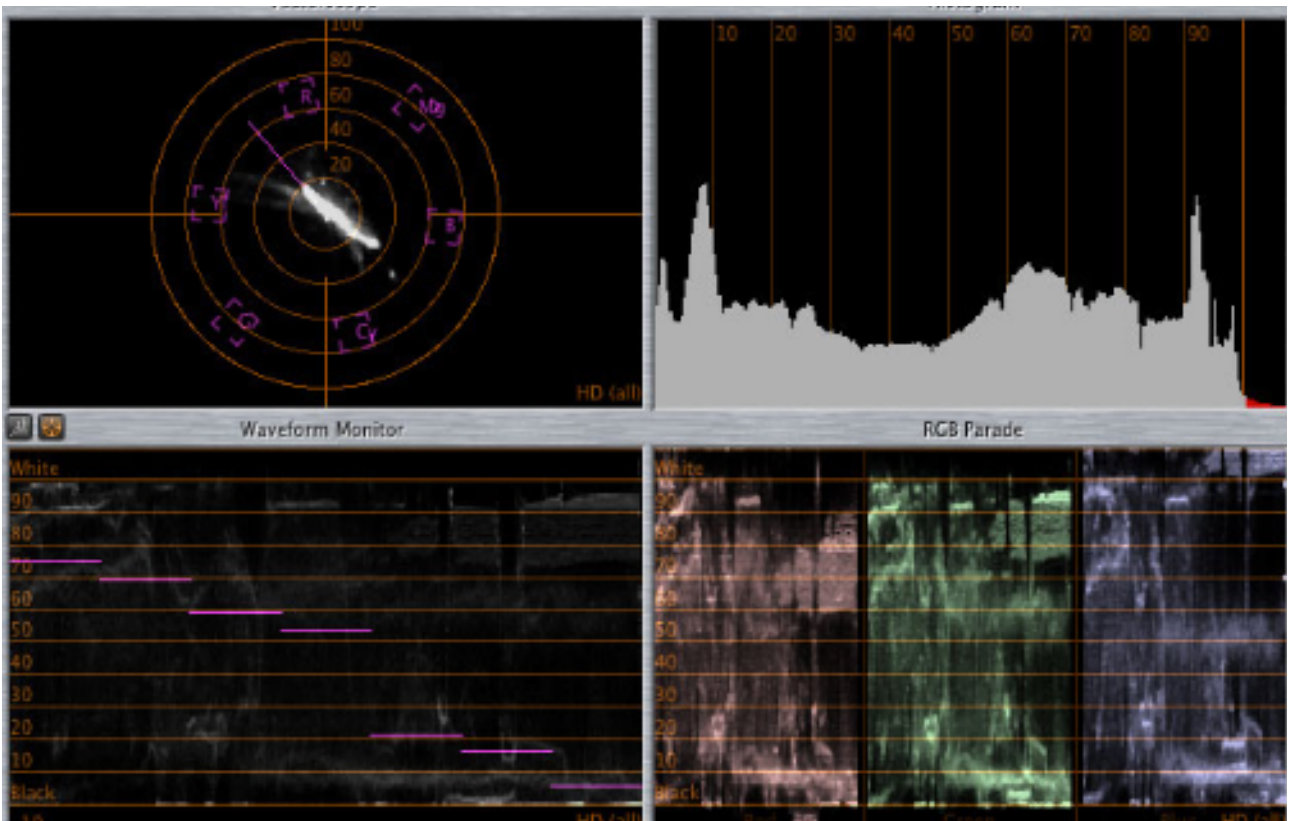


Figure 12. Screenshot from attached video "Luma Scope".



Images 13 & 14. Random pictures from Google Images

