

RUBICON: THE DIALECTIC

by

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## ABSTRACT

*Rubicon: The Dialectic* is a virtual reality (VR), multi-channel, video-art installation, created after researching interactivity, virtual reality, 2D and 3D animation, filmmaking, philosophy, and music. I intend to manifest my feelings as a Venezuelan, a Latin-American, and a free thinker by sharing with the spectator a VR immersive piece representing my inner struggle in these times of political meltdown. Attempting to go beyond the two orders that structure reality according to French structuralist psychoanalyst Jacques Lacan, *The Imaginary* and *The Symbolic*, I am searching to approach the third Lacanian order that structures human existence--the one that opposes and exists beyond reality, *The Real* (in this case my *Real*). This order is the negative space of reality and cannot be defined into the “symbolic” or the “imaginary” (Macey 324). This attempt to represent *The Real* transcends narrative standards and mainstream commercial use of VR, using instead artistic abstraction and freedom of visual language and expression. This paper is a way for me to describe and share my journey and artistic process on extrapolating my *psyche* into an immersive VR art piece, *Rubicon: The Dialectic*.

This work is dedicated to all the freethinkers and world citizens that transcend ideologies,  
religion, or nationality and embrace humanity as one.

To Guadalupe Carrasco, Genaro Carrasco, Mariamatilde Carrasco, and Victoria Carrasco,  
who endure being far from home in strange lands because of the endless greed of the power-  
hungry politicians that destroy families and our world.



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## TABLE OF CONTENTS

LIST OF FIGURES .....	vii
CHAPTER ONE: ARTISTIC COMPONENTS.....	1
Artist’s Statement and Artistic Background.....	1
Rubicon: The Dialectic. Why Animation, Why VR, and My Influences .....	6
Philosophical Concepts: from Lacan to Žižek.....	18
Aesthetic Concepts: Surrealism, Post-War Expressionism .....	27
Narrative Concepts.....	35
CHAPTER TWO: ART DIRECTION.....	37
Character Design.....	37
Environment Design.....	39
The Plot: Imaginary and Symbols.....	41
CHAPTER THREE: THE PROCESS .....	43
Modeling, Lighting, and Texturing.....	43
Technical Direction.....	48
Animation, Camera and Mesh Distortion.....	50
Music Composition and Sound.....	58
Filmmaking and Directing Actors .....	59
CHAPTER FOUR: MAYA, UNREAL ENGINE, AND VR.....	62

Autodesk Maya to Unreal Engine Pipeline .....	62
Setting up Everything Inside Unreal Engine .....	66
Cooking an Executable VR file for Steam .....	77
VR Gear, Exploration and Choices.....	79
Shots from inside RUBICON: The Dialectic .....	80
CONCLUSION.....	82
GLOSSARY .....	83
REFERENCES .....	84

## LIST OF FIGURES

Figure 1: Author's sequential art CENTROAMERICA 2690 DC (1990).....	4
Figure 2: Author's cartoon, The Reagan of peace (1987).....	5
Figure 3: Author's exhibition URBANOSCOPIA: The Schrödinger's Box (2009) .....	7
Figure 4: The author testing the teleportation controls on the VIVE VR system.....	9
Figure 5: Jesus Soto's Penetrable, Museum of art Jesus Soto, Photo taken by Marcos Carrasco in 2010.....	11
Figure 6: Author's, Nebula 6, Abstractions of Light (2010).....	12
Figure 7: Yayoi Kusama, Love is Calling (2018), photo taken by Marcos Carrasco.....	14
Figure 8: Screenshots of the author's films, Help me (2008), HERE(2014), and RUBICON: The Dialectic (2021) .....	17
Figure 9: Screenshot from author's VR thesis film showing the floating heads and screens. ....	25
Figure 10: Video capture featuring different elements inside the author's VR installation thesis. ....	26
Figure 11: Frame from author's animated-stereoscopic Video-wall projection, Help me! (2008) .....	29
Figure 12: Frames from author's hybrid animated film HERE (2014).....	30
Figure 13: VR captures of the screens inside the VR installation thesis film RUBICON: The Dialectic.....	31
Figure 14: Two frames from the 2D animation sequences inside the VR installation thesis film . ....	33

Figure 15: Shots from the 3D animation and live-action inside the thesis VR film RUBICON:The Dialectic.....	34
Figure 16: Two frames from VR film RUBICON: The Dialectic, The two heads arguing.....	36
Figure 17: Different shots comparing character's design, from 3D animation to live action sequence. ....	38
Figure 18: VR capture of the dark environment showing how the images float in the dark. ....	39
Figure 19: VR capture of the environment featuring the chessboard floor.....	40
Figure 20: The author directing the actors on the set and a final 3D animated shot of that scene. ....	42
Figure 21: Screen capture of the Character's head sculpted in ZBrush.....	43
Figure 22: Screen capture showing the retopology in Autodesk Maya. After sculpting in ZBrush. ....	44
Figure 23: This image shows the process of transferring normal maps into the new mesh.....	45
Figure 24: Image comparing the original .obj and the new mesh with proper topology with normal maps.....	46
Figure 25: Screenshot of the character's UV map, Head rigged with normal maps, and lighting test. ....	47
Figure 26: Screenshot of the character's lips flexy-planes .....	48
Figure 27: Screenshot showing the character's blend shapes, outliner, and joints.....	49
Figure 28: A frame of the author's film HERE (2014), showing the animated texture.....	50
Figure 29: Screenshots of the extruded vertexes on the triangulated meshes. ....	51
Figure 30: Screenshots and final render showing the wave deformer distorting the head.....	52
Figure 31: Screenshot of an unused early face tracking in NUKE done for the thesis VR film. ...	53

Figure 32: Screenshot of the animation process performed in Autodesk Maya.....	54
Figure 33: Screenshot showing the spotlight cones and the effect on my character’s meshes. ....	55
Figure 34: Screenshot of all the elements in the Autodesk Maya scene, and a fully rendered frame.....	56
Figure 35: Screenshot featuring a fully rendered animated sequence of RUBICON: The Dialectic.....	57
Figure 36: A photo of the set on the stage, before shooting the live-action footage and recording the dialogue.....	58
Figure 37: Images of the live-action sequence filmed for RUBICON: The Dialectic.....	60
Figure 38: Images of the editing process of the live action for my VR film, and the 16mm Camera that I used.....	61
Figure 39: Image of the screen meshes created in Autodesk Maya before exporting to Unreal Engine.....	62
Figure 40: File> Game exporter or File> Send to Unreal, two ways to export geometry from Autodesk Maya to Unreal Engine.....	63
Figure 41: The Image shows an Alembic Cache, Cache> Alembic Cache> Export Selection to Alembic. ....	64
Figure 42: Image showing Alembic Cache of the animated extrusion, Cache> Alembic Cache> Export selection to alembic. ....	65
Figure 43: Screenshot showing the Epic Games website, where you can download the Unreal Engine.....	66
Figure 44: Screenshot of the Unreal Engine interface while creating a VR blueprint project.....	67
Figure 45: Screenshot of the Unreal Engine interface while creating a Map.....	68

Figure 46: Screenshot of the Unreal Engine interface importing the environment .fbx file from Autodesk Maya, as Static Meshes. ....	69
Figure 47: Image showing the static meshes, and a plane that will hold a collider to keep the characters and everything else on the ground level. ....	70
Figure 48: Screenshot showing the static meshes, now connected to an RV media player and wrapped with a video as a texture. The RV can play video and sound.....	71
Figure 49: Screenshot showing how the Skeletal meshes of my characters are imported separately from the animation and with the textures. ....	72
Figure 50: Screenshot showing how the Alembic Cache is brought into the Unreal Engine by using Geometry Cache and unchecking the Flatten Tracks option box. This step is critical.....	73
Figure 51: Screenshot of the node-network of my character's textures and normal maps. ....	74
Figure 52: Screenshot of the node-network and the project settings tab with the control mapping protocols so the VIVE controllers would allow teleportation. ....	75
Figure 53: Screenshot showing the assets imported into the Unreal Engine, and the VR preview button.....	76
Figure 54: Image showing the protocol of building lights, and checking the proper world map before cooking the final VR executable.....	77
Figure 55: Screenshot showing the packaging of the content, and cooking an executable for Windows.....	78
Figure 56: Author's photo of the HTC VIVE COSMOS ELITE used in this thesis VR film. ....	79
Figure 57: VR capture shots from RUBICON: The Dialectic, showing the two 7ft 3D animated heads.....	80
Figure 58: Shots of the footage projected on the 70ft virtual screens .....	81

## CHAPTER ONE: ARTISTIC COMPONENTS

### Artist's Statement and Artistic Background

I consider art a continuous process, a collective, permanent subconscious connection between creator and spectator through the art piece, where the artist must break from the established constraints and conventionalisms of his artistic discipline. Art transcends language and allows the spectator to experience pleasant and unpleasant sensations. It allows a free personal interpretation by the spectator, letting them interact freely with the video-installation. I want the viewer to find him/herself in my art piece and let his/her reactions become the final part of the process. Then the art piece is completed.

In 1986, at the age of seventeen, I started as an editorial political cartoonist for a major Venezuelan newspaper. This experience shaped my life and perception of the world as I had to research and understand politics and philosophy. I also had in-depth conversations about Marxism, capitalism, narco-guerrillas, world peace, art, and human rights with the scholars that formed my family, inner-circle and close friends. These were colleagues of my father at the University of Oriente in Venezuela, who was a professor and the Dean of the School of Mining Engineering in the 1980s, a time of student riots and political turmoil in my country.

It was only after my trip through Central America in 1989 at age 20, hitchhiking from Mexico to Venezuela, where I saw a little of what Eduardo Galeano explains in his book *Open Veins of Latin-America*.

*Open Veins* is unobtainable either in my country, Uruguay or in Chile; in Argentina the authorities denounced it on TV and in the press as a corrupter of youth, As Blas de Otero remarked, "They don't let people see what I write because I write what I see." (Galeano 263)



I saw the devastation caused by imperialism and war. The devastation was just as Galeano described in his book, which was banned by right-wing military governments.

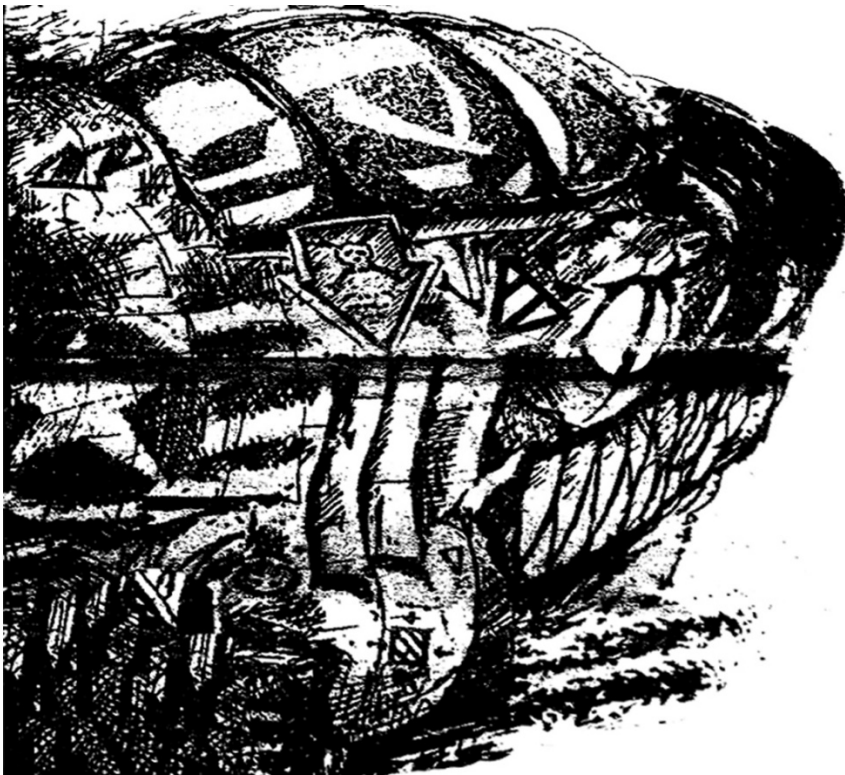
By bus, I left El Salvador at night with refugees seeking safety in Honduras. Heavy machine-gun fire lit up the sky revealing the fear in the eyes of the refugees. Later in Nicaragua, a country devastated by war, I met people that sheltered me in their humble shack. I met a shackled Sandinista soldier who had shot his sergeant. We shared a meal side-by-side in a doorway, which he ate with broken plastic that he carved and used as a spoon. These experiences shaped me as an artist; they inspired my work. In 1990, one of my political sequential art pieces was published, *Centroamerica 2690 DC*, in a major newspaper from Mexico City, *La Jornada*. This encouraged me to visit and have a conversation with Chilean-Venezuelan Painter, Anibal Ortizposo, who was also the director of the editorial house *Nueva Sociedad*, which published one of the most influential magazines of Latin-American political analysis, and also political cartoons.

Anibal Ortizposo reviewed my work and said that he would gladly accept my collaborations. The most important document that I got out of the meeting with Anibal was a printed sheet of paper that he gave me containing a speech from the Surrealist Chilean painter Roberto Matta. This speech was written for the Congress of Culture in Havana in 1969, and to the leader of the Cuban Revolution Fidel Castro. The speech addresses the importance of art as a tool to create a free and better world.

This speech greatly influenced me and my goals as an artist, and as an educator. It made me realize at age eighteen the power that we artists have. We can change the world by influencing others through the ideas expressed in our artistic work. Roberto Matta's speech title is "The Inner Guerilla" and reads as follows:

Art is not a luxury, it is a necessity, and just as in the social field the Revolution faces new problems and finds new ways to solve them, in the field of artistic creation and intellectual work a truly creative imagination will also propose the solution of an ever-renewed problem and will find the means of research and expression that is adequate to solve it...Art is the desire for what does not exist and at the same time the tool to realize that desire. (Matta)

Roberto Matta's speech deeply inspires the political, anti-establishment, allegorical, humanistic, and surreal content in my art.



*Figure 1: Author's sequential art CENTROAMERICA 2690 DC (1990)*





*Figure 2: Author's cartoon, The Reagan of peace (1987)*

*Source: Marcos Carrasco*

### Rubicon: The Dialectic. Why Animation, Why VR, and My Influences

Since 2006, animation and stereoscopy have been my main artistic mediums. This is the whole reason why I pursued a BFA in Animation at the Savannah College of Art and Design and later came to the University of Central Florida to expand my knowledge in emerging media technologies and their application to my art. I have presented my work as mixed-media, and video-art installations, participating in collectives and solo exhibitions in Venezuela, Mexico, and Ecuador. The most significant of the exhibits was *URBANOSCOPIA: The Schrödinger's Box (2009)*. This 1000-sq-ft installation was my answer to the developer's predictions on VR for the next decade. I addressed the urban themes of the time which were isolation and simulation, war, crime, and drug hallucination by displaying animated videos using a gigantic black box and kaleidoscopic mirrors. Because the use of VR technology was not available to me at the time, I manufactured stereoscopic devices and anaglyphs in my workshop.

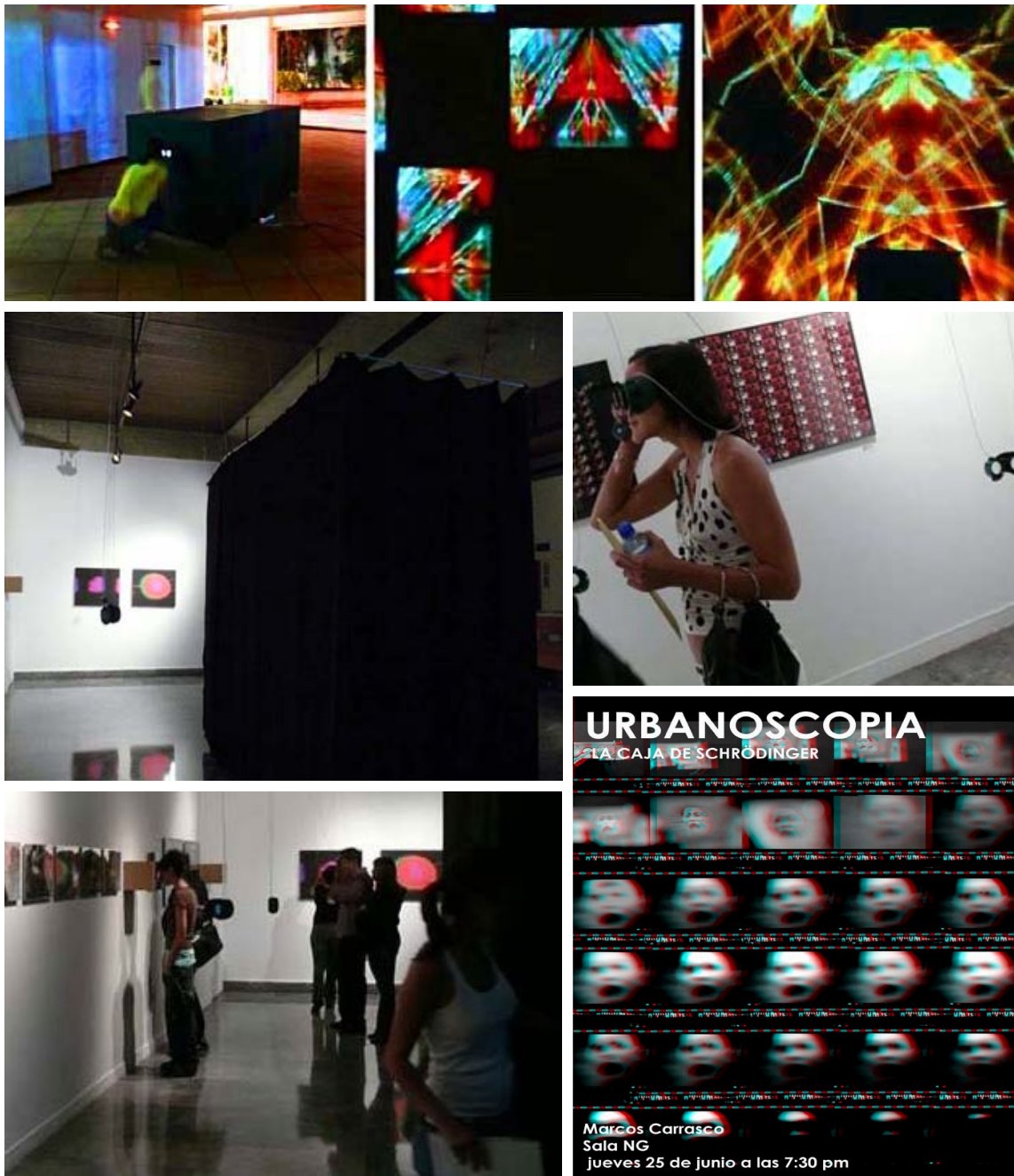


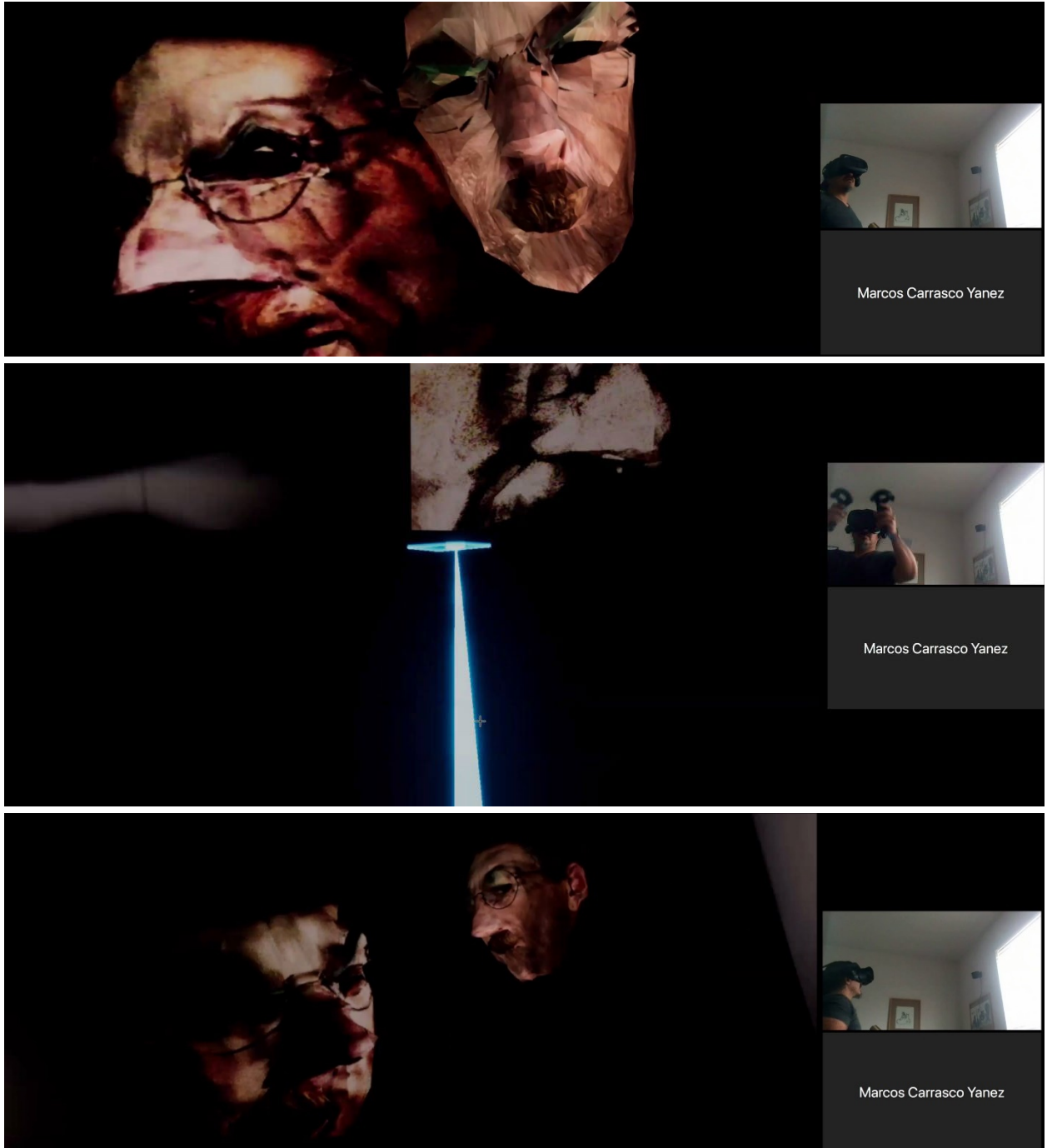
Figure 3: Author's exhibition *URBANOSCOPIA: The Schrödinger's Box* (2009)

Source: Marcos Carrasco

*Rubicon: The Dialectic* was intended to be exhibited as a video-art installation projected on a wall, but because of the COVID-19 world pandemic, I decided to adapt my project to the emerging technology and to follow social distancing protocols. This is how and why I decided to learn VR, its pipeline with *Autodesk Maya*, and one of its most important developing tools the *Unreal Engine*. Once I started researching and applying interactivity, VR, and other technologies, *Rubicon: The Dialectic* also transformed and evolved. My thesis project grew from being a conventional 2D-3D single-channel animated video-art projection to a multiscreen, multi-channel, interactive VR installation. The immersed spectator becomes part of *Rubicon*'s virtual world. When I started to develop *Rubicon: The Dialectic* into a VR installation I realized the potential that VR has, allowing the spectator to interact and move freely inside the virtual world. This is part of the full development of the VR installation: the free interaction of the spectator inside *Rubicon: The Dialectic*. I consider art an evolving process, a process that is not completed until it reaches and provokes a reaction from the spectator.

To me, art is a personal and collective process that can last minutes to a lifetime and has existed since we walked the planet and drew in caves. In my experience, it is a way to reveal and share our inner world and a way to communicate deeper messages that cannot be achieved with words alone. Art is a way to confront ourselves and change. The virtual reality experience allows me to explore and develop a language using traditional emerging media methods and pipelines, and apply it in my installation art.





*Figure 4: The author testing the teleportation controls on the VIVE VR system.*

*Source: Marcos Carrasco*



Many artists influence my installation artwork. Allowing the spectator to be physically immersed in an art piece is not new to me. It has been with me since I was a little child and played inside the *Penetrables*, made by the Venezuelan artist *Jesus Soto*, at the museum built by his foundation in his and my hometown, Ciudad Bolivar. Soto explains his *Penetrables* in this quote published in a catalog from Perrotin Gallery:

Before, the viewer was like an outside witness to reality. Today we know that man is not on one side and the world on the other. We are not observers but integral parts of a reality which we know to be teeming with living forces, many of them invisible. We are in this world like fish in water: we are not distanced from matter-energy, we are WITHIN it and not FACING it: there are no more viewers, there are only participants. (Soto)

Jesus Soto (Ciudad Bolivar 1923 - Paris 2005) is one of the most iconic and influential kinetic artists. His *Penetrables* are gigantic sculptures made by hanging thousands of plastic or metal tubes that create sounds and optical illusions when the spectator walks inside and through them. I met him and had a two-hour conversation with him on a flight to Ecuador in 1995. Jesus Soto influenced me strongly in my early work. I created physical immersive environments with optical effects experience, such as the *Niravanscope* in *Urbanoscopia*. My exhibition *Abstractions of Light* was an homage to him. The *Nebula* series is part of my *Abstraction of Light* art exhibition. The UCF Celeste Hotel acquired two copies as part of their art collection.



*Figure 5: Jesus Soto's Penetrable, Museum of art Jesus Soto, Photo taken by Marcos Carrasco in 2010*

*Source: Marcos Carrasco*





*Figure 6: Author's, Nebula 6, Abstractions of Light (2010)*

*Source: Marcos Carrasco*

Yayoi Kusama (Nagano-Japan 1929) is also one of my main influences. I had the pleasure to experience being inside her installation work *Love is Calling* displayed at the Tampa Museum of Art in 2018. She uses dark mirrors that cover an entire room, and plastic sculptures resembling tentacles covered with her signature polka dots, with a recording of her voice reciting her poem *Love is Calling* gently filling the room.

Like Alice, who went through the looking-glass, I, Kusama, (who have lived for years in my famous, specially-built room entirely covered by mirrors), have opened up a world of fantasy and freedom. (Yayoi Kusama)

In this case, Yayoi Kusama merges media such as audio, and physical materials to resemble her inner world. Like Jesus Soto's, her work has also influenced my creation of physical immersive spaces. The emerging VR technology has allowed me to immerse the viewer in my art. Yayoi Kusama's installation pieces influenced me in the use of mirrors in my early stage, but also by using poetry in my early installation work.



*Figure 7: Yayoi Kusama, Love is Calling (2018), photo taken by Marcos Carrasco.*

*Source: Marcos Carrasco*

Christian Marclay is another strong influence in my work. His video-art installation *The Clock* (2010) is a single-channel video art piece and a strong example of the use of montage in art. A description of *The Clock* by the Tate Museum of Art elaborates on the use of montage: “24-hours long, the installation is a montage of thousands of film and television images of clocks, edited together so they show the actual time. It is a thrilling journey through cinematic history as well as a functioning timepiece.” (TATE) Marclay creates a video-art piece that uses montage to gather shots from different films to fill the entire time spectrum. To build a 24-hour video clock is an impressive achievement in extrapolating media into a real utilitarian object. And, it also an art piece that can be streamed endlessly online for anyone to experience. It demonstrates how emerging media technologies and film techniques open new vast territory for video-art, transcending the physical space. Marclay's work has influenced me in the use of montage applied to installation art.

Conceptual artist, Mel Chin, has also influenced me with his artistic collaborative project *9/11-9/11* (2007), a complete hand-drawn animated 24-minute film. In this short film, Mel Chin addresses comparisons between two historical political events; and touches upon the subject of CIA political interference as a form of terrorism. Chin describes this work in the following:

The film is in collaboration with American filmmaker Chip Schneider, and Chilean animation partners Plano Visual Estudio de Animación in Santiago, Chile. The voice cast includes American actress Lili Taylor, well-known Chilean satirist Juan Carlos “Palta” Melendez, and popular Chilean stars Sandro Larenas and Rosario Zamora. (Chin)

Chin's film 9/11-9/11 also influenced me in the use of animation as a very powerful medium in film and art. His video-art piece *Marfa Memento Mori* in 2011 is a good example of the use of animation in a video-art piece:

An internet posting from Marfa Lights viewing area in Marfa, Texas was adjusted, printed and taped to a homemade animation stand. A compact digital camera set to video mode captured white chalk "lights" being drawn smudged and erased. Studio. (Chin)

David Lynch's piece *Six Men Getting Sick* (1967), and Jan Svankmajer's *Možnosti dialogu* (*Dimensions of Dialogue*) (1983) are two unconventional, surrealistic films that are far from mainstream commercial animation. They influenced the political and psychological themes of my work since my first animated film *Help me!*, a video-wall projection selected by the Bilbao Fantasy Film Festival (Bilbao FANT FEST) Spain in 2009. *Help me!* is a 45-second immersive stereoscopic video-wall projected loop that criticizes the attacks against the Palestinian nation, and the Gaza bombings that killed so many innocent civilians and children in 2008-2009.



*Figure 8: Screenshots of the author's films, Help me (2008), HERE(2014), and RUBICON: The Dialectic (2021)*

*Source: Marcos Carrasco*



### Philosophical Concepts: from Lacan to Žižek

Catharsis is a Greek word, that means “to purify” or to “clean”. Catharsis is used by Greek philosopher Aristotle (384-322) in his early surviving work of dramatic theory the *Poetics*. According to the Encyclopedia Britannica, *catharsis* is “the purification or purgation of the emotions (especially pity and fear) primarily through art”. We clean out our emotions, we purify our soul through art, either we act as spectators or as creators, director Jean-Luc Godard said: “Art attracts us only by what it reveals of our most secret self.” This communion with art connects us with our deepest emotions, in all artistic expressions.

Christopher Small defined the term “musicking” in his book *Musicking The Meaning of Performing and Listening* as taking part, in any role, dimension, in a musical performance, and it can be considered a form of catharsis.

If everyone is born musical, then everyone's musical experience is valid. That being so, a theory of musicking, if it is to have any basis in real life, must stand up to being tested against the musical experience of every human being, no matter who he or she may be or how the experience was acquired... The act of musicking establishes in the place where it is happening a set of relationships, and it is in those relationships that the meaning of the act lies. They are to be found not only between those organized sounds which are conventionally thought of as being the stuff of musical meaning but also between the people who are taking part, in whatever capacity, the performance; and their model, or stand as metaphor for, ideal relationships as the participants in the performance imagine them to be: relationships between person and person, between

individual and society, between humanity and the natural world and even perhaps the supernatural world. These are important matters, perhaps the most important in human life, and how we learn about them through musicking. (Small 13)

We as humans connect to art (in this case to music) as part of our nature without having to understand the theory or the structural language of an art form. Joseph Beuys states:

Only on condition of a radical widening of definitions will it be possible for art and activities related to art [to] provide evidence that art is now the only evolutionary-revolutionary power. Only art is capable of dismantling the repressive effects of a senile social system that continues to totter along the deadline: to dismantle in order to build 'A SOCIAL ORGANISM AS A WORK OF ART'... EVERY HUMAN BEING IS AN ARTIST who – from his state of freedom – the position of freedom that he experiences at first-hand – learns to determine the other positions of the TOTAL ART WORK OF THE FUTURE SOCIAL ORDER. (Schlich)

I agree with Beuys and Small; we humans connect as one through art. We are all artists; making art is a natural and a primary characteristic of being human. Before we invented language, we were already artistic. I believe that art is our only remaining connection with what Lacan defines as the Real. Here is an extended definition of The Real:

The Real (Lacan): The state of nature from which we have been forever severed by our entrance into language. Only as neo-natal children were we close to this state of nature, a state in which there is nothing but need. A baby needs and seeks to satisfy those needs with no sense for any separation between itself and the

external world or the world of others. For this reason, Lacan sometimes represents this state of nature as a time of fullness or completeness that is subsequently lost through the entrance into language. (“The Real”)

*Rubicon: the Dialectic* is an allegory of a deep part of my psyche concerned about the intolerance, censorship, and division escalating in today’s world. It is also a form of catharsis for me as an artist.

*Rubicon: the Dialectic* is a surrealist manifestation of my rejection of the emerging stigmatization of progressive ideas such as socialism, in Latin-American countries, and even in the United States towards Bernie Sander’s candidacy. I aim to provoke, to evoke, to re-create emotions, to stimulate an experience for the spectator, that is immersed in *Rubicon: the Dialectic*. The spectator is free to explore this animated, mixed-media VR installation that functions as a virtual representation of a part of my subconscious.

In *Rubicon*, I represent the stigmatization and the dilemma of Latin-American transculturalization and division, by having one character's head alienating the other by ordering him to retreat into the status quo. Lacan says that the element of recognition means that “the EGO is a product of the IMAGINARY or an Illusory structure in which the subject becomes trapped into ALIENATION” (Macey 256). According to Marxist theorists “Alienation is a condition of workers in a capitalist economy, resulting from a lack of identity with the products of their labor and a sense of being controlled and exploited.” (“Alienation” 16).

In *Rubicon: the Dialectic* I am expressing my concern on censorship, and the emerging rise of anti-socialist ideas, especially in my country Venezuela and Latin-America. The conservative head complains to his mirror image to play the game properly and the dialectic starts. “The definition of dialectic in Greek philosophy is a form of reasoning which uses the pattern of

questions and answers exemplified by Plato's dialogues" (Macey 96). Immanuel Kant in his *Critique of Pure Reason* considers the term 'dialectic' to "describe self-contradictory ideas and the syllogisms in which there are no empirical premises as it proceeds to greater certainty" (Macey 96).

As an idealist, I appeal to find solutions and answers by establishing a connection with the spectator through the use of an immersive art piece (my VR installation). The surrealism and elusiveness of the plot inside *RUBICON: The Dialectic* allows self-questioning and participation from the spectator. This interaction in *RUBICON: The Dialectic* is extremely important to complete the whole piece. Jaques Ranciere defines "Critical art" in the following quotation:

Critical art is an art that aims to produce a new perception of the world, and therefore to create a commitment to its transformation. This schema, very simple in appearance, is actually the conjunction of three processes: first, the production of a sensory form of 'strangeness'; second, the development of an awareness of the reason for that strangeness and third, a mobilization of individuals as a result of that awareness. (Rancière)

The viewer is set free by the ability to 'teleport' and move inside the VR installation. By pressing a button, the spectator has the freedom to move and look anywhere inside the installation and choose the shots and the order of the visual narrative elements in order to create a Kuleshov effect within the mind. Therefore, the spectator has his/her own "mental camera" and can create a 'mental montage' of my piece. The spectator also has the freedom to interpret the analogy under his/her terms, because the dialogue over 'the game' is ambiguous and open to interpretations, a characteristic of political satire and allegories.

The symbolic order of elements (Lacan), is represented in *RUBICON: The Dialectic* by an empty chessboard in the center of the installation right underneath the 3D heads that represent the Imaginary order that structures human existence. Lacan defines the symbolic order as:

The social world of linguistic communication, intersubjective relations, knowledge of ideological conventions, and the acceptance of the law (also called the "big Other"). Once a child enters into language and accepts the rules and dictates of society, it is able to deal with others. The acceptance of language's rules is aligned with the Oedipus complex, according to Lacan. The symbolic is made possible because of your acceptance of the Name-of-the-Father, those laws and restrictions that control both your desire and the rules of communication. Through recognition of the Name-of-the-Father, you are able to enter into a community of others. The symbolic, through language, is "the pact which links... subjects together in one action. The human action par excellence is originally founded on the existence of the world of the symbol, namely on laws and contracts" (Freud's Papers 230). The symbolic order works in tension with the imaginary order and the Real. (Symbolic Order)

When the spectator enters *RUBICON: The Dialectic*, the spectator is out of the chessboard and positioned at a higher eye level than the two heads. The spectator can start to interact by teleporting and approaching the heads. When the spectator is inside the chessboard, he is in the representation of the symbolic order of my psyche in my VR installation. The spectator has become a chess piece. My art piece becomes an analogy presenting the spectator as any citizen in a society struggling with "the game, "the system". The spectator has the power and option to teleport out of the chessboard and not be a chess piece, or a victim of my

sylllogism, which includes my satirization of him. The spectator is free to decide by his/her thoughts if this symbolic element defines him/her as a chess piece. There is no visual evidence, nor a mirror to show to the participant his physical appearance, but the position of the heads looking down on the visitor over the chessboard may, or may not 'alienate' the observer. The observer could be completely immune to the symbolism and just stay as an observer. In VR, the viewer can only see the VR controls as the only physical manifestation of his mirror stage, but his freedom of motion is proof of his/her freedom.

In the case of my example of a spectator trapped in a VR world, 'the negative space,' becomes the subtraction from the participant's reality inside the VR world. The previous knowledge of 'real freedom', represents a 'better place.' The missing state of freedom before the VR becomes their Real, in counterpoint with their reality, if the viewer decides to embrace that new state of existence. The observer's past state of freedom becomes their unachievable Real. I can only share subjective experiences from *RUBICON: The Dialectic* as an attempt to manifest my Real (unfreedom). I believe that art is our natural way to connect with our early stages before language and to represent our Real.

Slovenian contemporary philosopher Slavoj Žižek (1949-) expresses a similar idea "We feel free because we lack the very language to articulate our unfreedom." (Žižek 2). Unfreedom is the Real. Žižek explains this concept in his book *Welcome to the desert of the real* where he tells an old joke from the disbanded German Democratic Republic:

A German worker gets a job in Siberia; aware of how all mail will be read by the censors, he tells his friends: 'Let's establish a code: if a letter you get from me is written in ordinary blue ink, it's true; if it's written in red ink, it's false.' After a month, his friends get the first letter, written in blue ink: 'Everything is wonderful

here: the shops are full, food is abundant, apartments are large and properly heated, cinemas show films from the West, there are many beautiful girls ready for an affair- the only thing you can't get is red ink. (Žižek1).

In this joke, Žižek describes the Real, **the Unfreedom**, by showing how the worker admits that he is lying by mentioning that there is no red ink therefore he is implying that the document was supposed to be written in red ink “ he none the less succeeds in getting his message across- how? By inscribing the very reference to the code into the encoded message, as one of its elements”. (Žižek 1). Žižek established a language that does not have a code or symbols to picture the Real, the unfreedom:

One starts by agreeing that one has all the freedoms one wants-  
then one merely adds that the only thing missing is the 'red ink': we 'feel free'  
because we lack the very language to articulate our unfreedom. (Žižek 2).

In *RUBICON: The Dialectic* I end the loop with Žižek's quote “We feel free because we lack the very language to articulate our unfreedom” to reinforce my statement of unfreedom. Along with the images that are projected on the screen, this can be considered multi-channelled from a technical aspect. From a philosophical and a narrative point, I am using these projected videos to surround the spectator, not only as a parallel source of visual metaphors in juxtaposition with the dialogue but also as a Metalanguage:

In linguistics, it denotes any technical language which describes the properties of language (discussed by Roman Jakobson in his essay *Linguistics and Poetics*, 1960). Metalanguage helps in describing the concepts, grammar, and objects associated with a particular programming language. It is also known as a 'second-

order language, which may be used to describe, explain, or interpret a ‘first-order’ language. (Maity)

I use the concept of metalanguage as a video-art and experimental narrative resource to unify all the concepts under one artistic structure that defines ‘Unfreedom’ as The Real. While the Dialectic established between the two heads is just the process of self-questioning, the dialogue is metaphorical (it is not about chess) and the juxtaposition helps to reveal the real message. This is more noticeable by the use of live-action and my use of the 2D animated sequence at the end. These narrative layers of different techniques, or mediums; are the metalanguages inside the structured multimedia language in my VR installation.



*Figure 9: Screenshot from author's VR thesis film showing the floating heads and screens.*

*Source: Marcos Carrasco*





*Figure 10: Video capture featuring different elements inside the author's VR installation thesis.*

*Source: Marcos Carrasco*

### Aesthetic Concepts: Surrealism, Post-War Expressionism

*RUBICON* has two strong influences: Surrealism and Post-war German Expressionism. This is not new in my work and comes from my early experience in Black Box theatre in the 1980s. When I was a teenager I performed as Mephistopheles, the devil in a theatrical adaptation of the University of Oriente theater group. *Las Desventuras de Fausto* is a satiric poem written by Venezuelan humorist Aquiles Nazoa (1920-1976) a parody of Johan Wolfgang von Goethe's *Faust*. Aquiles Nazoa was sent into exile by dictator Marcos Perez Jimenez in 1956. Coming back in 1958, he had a strong folklorist, nationalist anti-fascist inclination, which was inspired by Spanish poet Federico Garcia Lorca (1898-1936), who was murdered by Dictator Francisco Franco's fanatics. Lorca and Nazoa were nationalists, but also surrealists. In the late 1920s to early 1930s poet and playwright Federico García Lorca, painter Salvador Dalí, and filmmaker Luis Buñuel lived together. They were part of the founders of the Surrealist movement, which greatly influenced Latin-American intellectuals and artists. The content and aesthetics of Luis Buñuel *Los Olvidados (The Young and the Damned)* (1950) especially points toward the working class in Mexico, using metaphorical, poetic imagery. Salvador Dalí, and Buñuel made *Un Chien Andalou (An Andalusian Dog)* (1929). This surrealist film, along with their literature and painting, would become part of an intellectual movement in Europe and later in Latin America. This cultural connection of painting, poetry, theatre, and filmmaking influenced a whole generation struggling through Franco's authoritarian regime and inspired the young generations facing authoritarianism in other parts of the world. Surrealism and Dadaism influenced later movements from European Expressionism and Magic-Realism to Latin-American writers like

Gabriel Garcia Marquez (*One Hundred Years of Solitude* (1967)), and Juan Rulfo (*Pedro Paramo and the Llano inflames* (1953)), to the Beat Generation in the USA. Mexican poet and diplomat Octavio Paz once said:

Surrealism is not a school of poetry but a movement of liberation,...A way of rediscovering the language of innocence, a renewal of the primordial pact, poetry is the basic text, the foundation of the human order. Surrealism is revolutionary because it is a return to the beginning of all beginnings. (Octavio Paz)

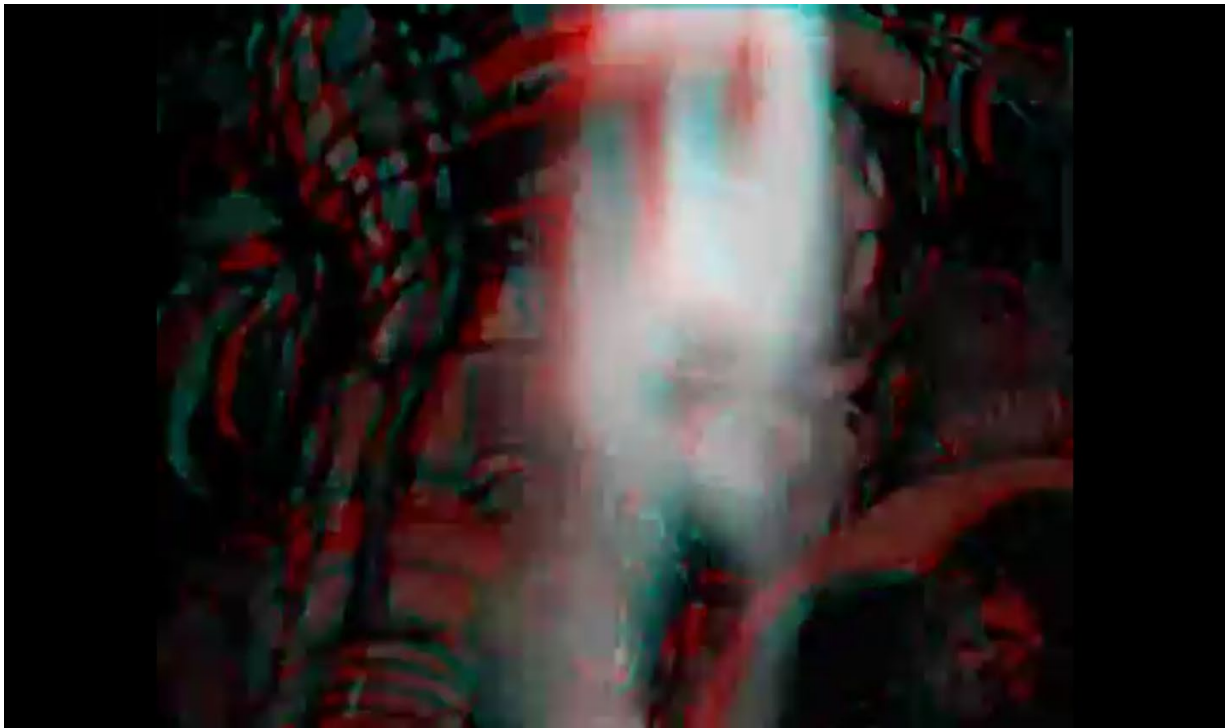
Black Light Theatre was another early experience that influenced my style. We used real human-size puppets built in the style of Jim Henson's Muppets to recreate surrealistic images of floating creatures. These were lit using a black light (UV Light), a device that was very much popularized by the Black Light Theatre (Černé Divadlo) of Prague, which created an empty black void, the perfect environment for floating creatures to emerge. This became one of the most important stylistic features in my work. I want the participant to feel the embrace of the dark abyss surrounding him/her, and gaze into the void:

He who fights with monsters might take care lest he thereby becomes a monster.  
And if you gaze for long into an abyss, the abyss gazes also into you."  
(Nietzsche 146).

Especially for the surreal content in my films, as in a dream, in my films and video-art installations, all the elements within the art piece must have a reason to exist. They emerge from the dark as our ideas and visions. The stage is dark so as not to distract. The goal is to create a magical, surrealistic, dreamlike effect, and to incite the spectator so that they will react, feel and imagine.

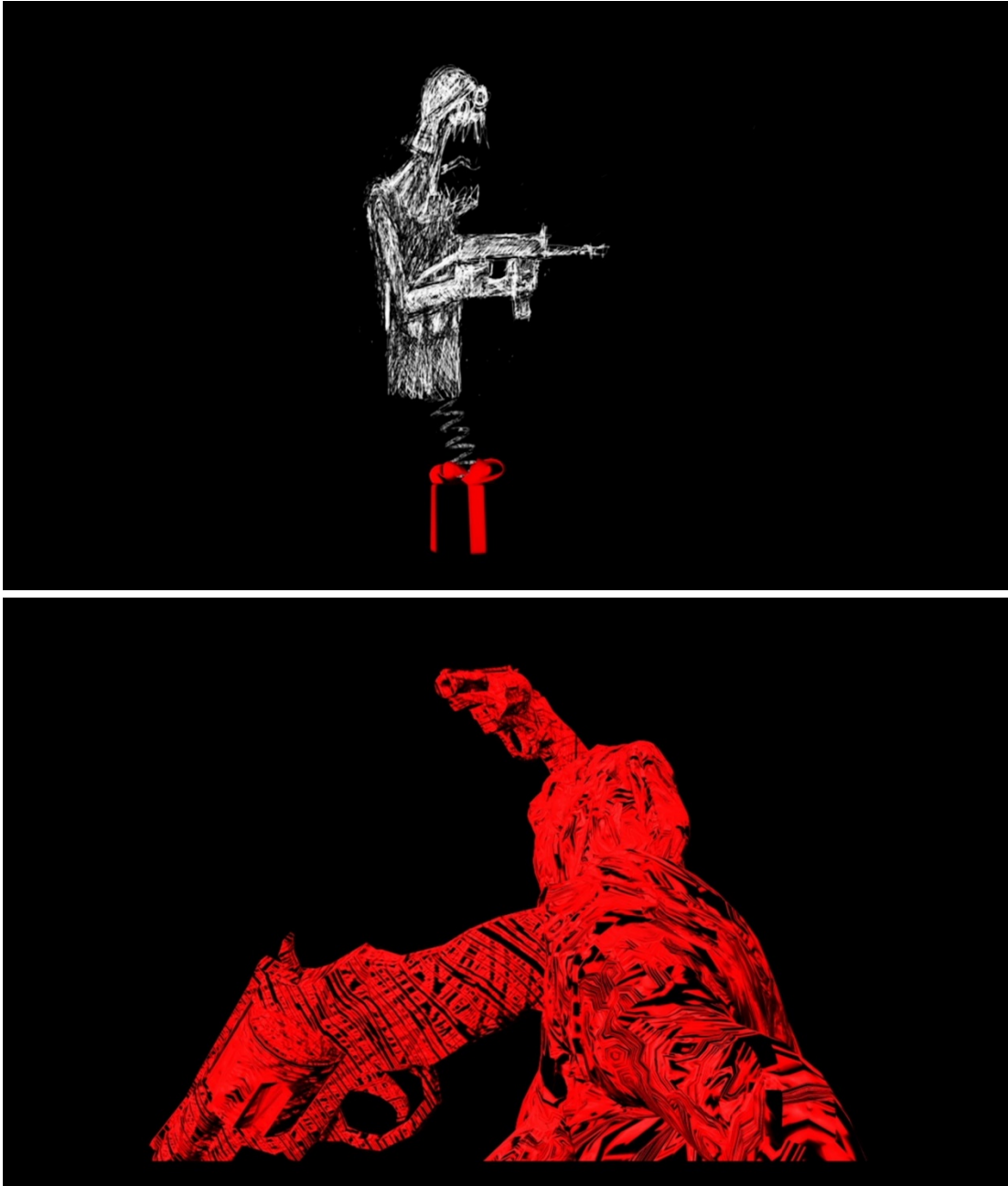
A dark environment was chosen to frame an idea, while other objects and ideas were juxtaposed. This is why I use no background except projection screens or darkness in

*RUBICON*. In my film *HERE* (2014) I use this element as an expressive device along with just three colors to represent violence, oil, and war: red, white, and black. This black box void became my trademark since it appeared in my short film *Help me!* (2008) where a screaming child comes running from the dark chased by a terrifying sound of machine-gun fire, explosion, and the raging roar of a fighter plane and its pilot talking on the radio.



*Figure 11: Frame from author's animated-stereoscopic Video-wall projection, Help me! (2008)*

*Source: Marcos Carrasco*



*Figure 12: Frames from author's hybrid animated film HERE (2014).*

*Source: Marcos Carrasco*

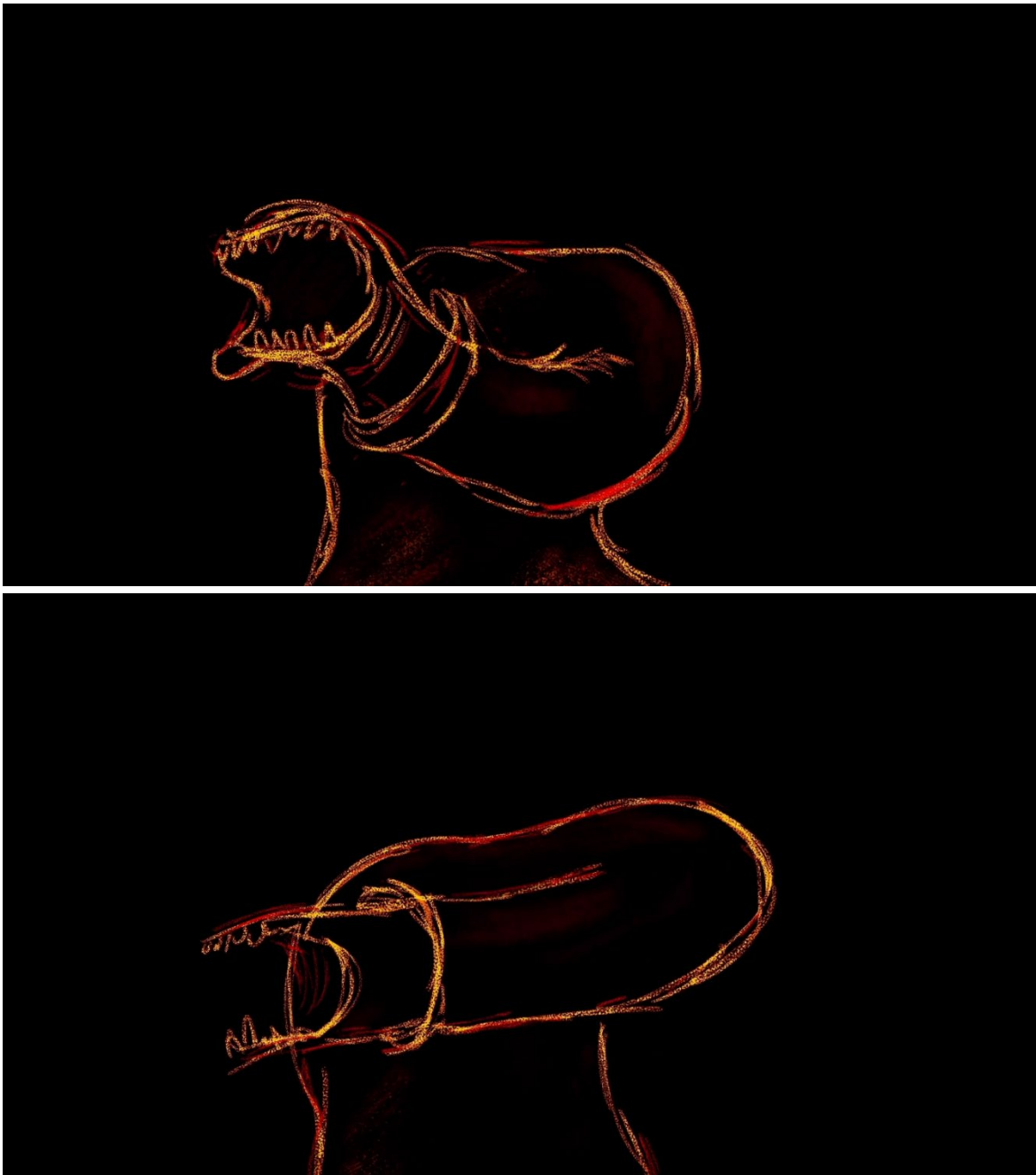


*Figure 13: VR captures of the screens inside the VR installation thesis film RUBICON: The Dialectic.*

*Source: Marcos Carrasco*

Another stylistic influence in my films, video-art, and artwork is German Expressionism (1920s) and Post-War Expressionism (1925). These movements are based on the premise that artists represent their inner feelings, including those related to post-war traumas and deception. Robert Wiene's *The Cabinet of Dr. Caligari* (1920) is an example. His style is dramatic, contorted and emotionally-charged, which is why I use a boxy representation of my characters and distort the mesh angularly.

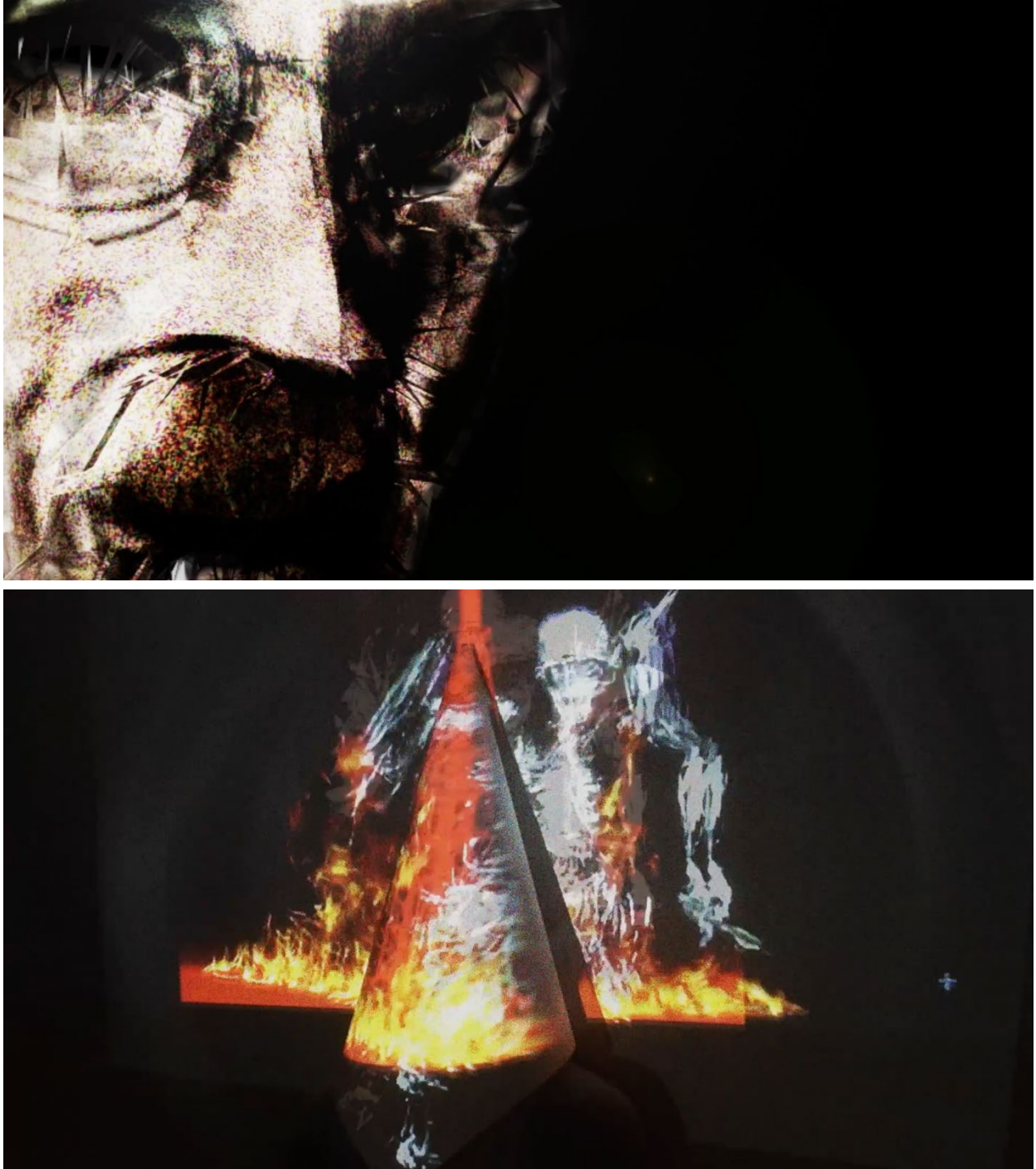
I am also influenced by an art movement that came later as a response to the 20th-century wars and the oppression in Germany and other regions of Europe after WWII: *Die Neuen Wilden* (*The New Fauves*). This iconic art movement of the 80s influenced me greatly because my beginnings as a visual artist were surrounded by it. My art, with its distortion of character's geometrical meshes, resembles work from this movement. When I draw in a minimalistic way, my 2D animation resembles graffiti. When my character grows spikes and "glitches", they represent the inner speech of my character and its emotions. This movement's characteristics have a lot of influence from Minimalism and Punk movements. I am a Minimalist when I avoid using unnecessary elements. The distortion of my characters, the political anti-establishment of my plot, and the conceptual approach in my films are characteristics of *The New Fauves* movement influencing *RUBICON: The Dialectic*.



*Figure 14: Two frames from the 2D animation sequences inside the VR installation thesis film .*

*Source: Marcos Carrasco*





*Figure 15: Shots from the 3D animation and live-action inside the thesis VR film RUBICON: The Dialectic.*

*Source: Marcos Carrasco*

### Narrative Concepts

*Waiting for Godot* (1949) by Samuel Beckett is a theatre play in which two characters, Vladimir and Estragon, engage in several discussions and encounters while they are waiting for Godot, who never arrives. This play is part of *The Theatre of the Absurd* movement. In my work, I use improvisation and double meaning, and absurd discussion to satirize human existence and political conflict. The speech about the game of chess is not important as a form but as a metaphor. It is not important when it comes to the game of chess, because it is about the context of the rules of the “game” and the elite class that makes the rules. I am talking about the system, the status quo or the establishment.

**Theatre of the Absurd**, dramatic works of certain European and American dramatists of the 1950s and early '60s who agreed with the Existentialist philosopher Albert Camus's assessment, in his essay “The Myth of Sisyphus” (1942), that the human situation is essentially absurd, devoid of purpose. The term is also loosely applied to those dramatists and the production of those works. Though no formal Absurdist movement existed as such, dramatists as diverse as Samuel Beckett, Eugène Ionesco, Jean Genet, Arthur Adamov, Harold Pinter, and a few others shared a pessimistic vision of humanity struggling vainly to find a purpose and to control its fate. Humankind in this view is left feeling hopeless, bewildered, and anxious. (“Theatre of the Absurd.”)

In *Rubicon: The Dialectic*, my characters do not have a body, just heads. With this I represent the lack of action and I create a caricature having an absurd debate similar to Jan Švankmajer's *Dimensions of a Dialogue*.



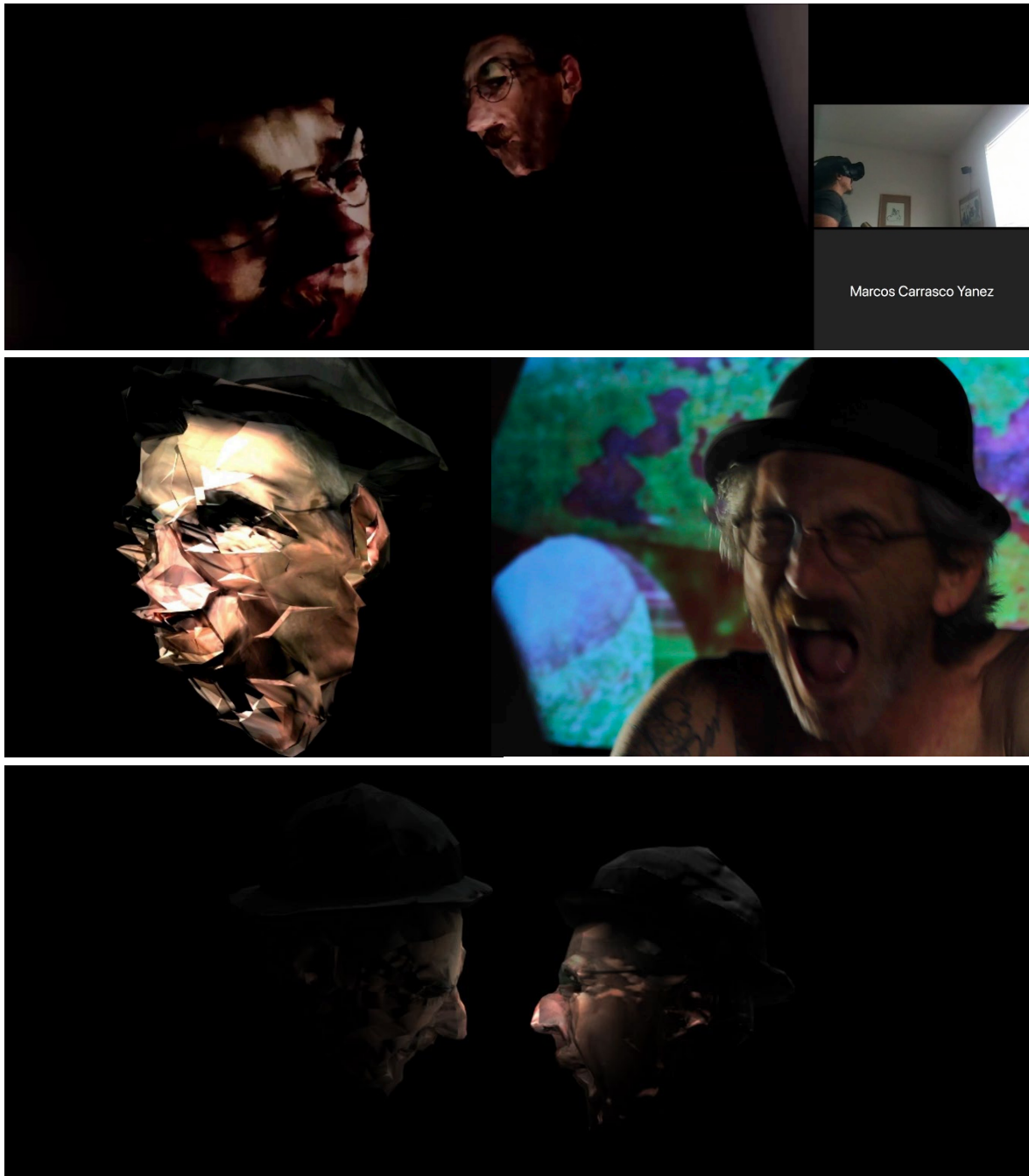
*Figure 16: Two frames from VR film RUBICON: The Dialectic, The two heads arguing.*

*Source: Marcos Carrasco*

## CHAPTER TWO: ART DIRECTION

### Character Design

My CGI character design is inspired by several elements that are related to different times and artistic disciplines and icons such as Charlie Chaplin and Surrealist painter René Magritte's (1898-1967) *Man In a Bowler Hat*. I had to cast an actor for the live-action shots in *RUBICON: The Dialectic*, and then sculpt and model my character's mesh based on his features to adapt this into my film and to be consistent with the whole VR installation theme. I cast my actor based on his resemblance with Charlie Chaplin, an iconic person that I admire. Chaplin's character is connected to the common man, the artist and to those that are homeless or dispossessed. The process involved a pipeline using ZBrush and Autodesk Maya. I reached for a very low poly geometry, and, like in German Expressionism, I focus on expressing and representing my inner feelings or emotions while using simplified shapes. I have sculpting experience with clay and metal and a previous experience with ZBrush. But for this character, I wanted to sculpt inspired by the rough style of Auguste Rodin (1840-1917). I did not aim for a full detailed realistic sculpture; but more for a rough unfinished look that will match my surrealist-expressionist style. I have experience with sculpting from metalwork to lost-wax bronze techniques. Rodin and Alberto Giacometti (1901-1966) are two of my stronger influences in sculpture.



*Figure 17: Different shots comparing character's design, from 3D animation to live action sequence.*

*Source: Marcos Carrasco*

## Environment Design

As I mentioned before, the dark empty background in my work makes a statement of surreal discomfort and emptiness. I also modeled my screens to project the films simultaneously in my VR installation. In my Environment Design, as I mentioned in the previous chapter, I use CGI screens that are projecting a series of animated videos or cuts in juxtaposition with the 3D meshes in the center. I also added to the center of my VR installation film a chessboard surface. This surface as I mentioned in the previous chapters symbolizes “the game,” the establishment. The spectator can move freely through this or into the dark areas surrounding it. Over this are the heads, and encapsulating all as walls are the screens. The visual experience is different depending on where the spectator is located inside the VR installation.



*Figure 18: VR capture of the dark environment showing how the images float in the dark.*

*Source: Marcos Carrasco*



*Figure 19: VR capture of the environment featuring the chessboard floor.*

*Source: Marcos Carrasco*

### The Plot: Imaginary and Symbols

The plot is established in *RUBICON: The Dialectic* by the argument between the two heads. It represents an inner dialogue, but it also represents an inner struggle and a choice of freedom over fanaticism; this is represented by the 2D animated sequence of the metamorphosis of the character into a bird. The word Rubicon comes from a river, but the meaning comes from a moment in history: On January 10, 49 BC, Julius Caesar's army crossed the Rubicon river, precipitated the Roman Civil War, became dictator, and this led to the rise of imperial Rome. Rubicon means to make a move, to make a life-changing decision, a moment of self-confrontation, a point of no return. The main reason why my film is called *RUBICON: The Dialectic*, is because as a migrant, I have made choices that are affecting my life, but also the life of my family, daughter, and mother. In a way, *RUBICON: The Dialectic* is a reinforcement of my artist statement, a reminder of my premises as a freethinker. It is a portrait of the inner conflicts ideologically related between me and my peers, my loved ones, and fellow Venezuelans divided by the political meltdown in Latin-America, and by the fanatic uprising of neo-liberal extreme right-wing powers. I am expressing my entrapment in a world that increasingly grows to desire unfreedom and surveillance instead of being free.





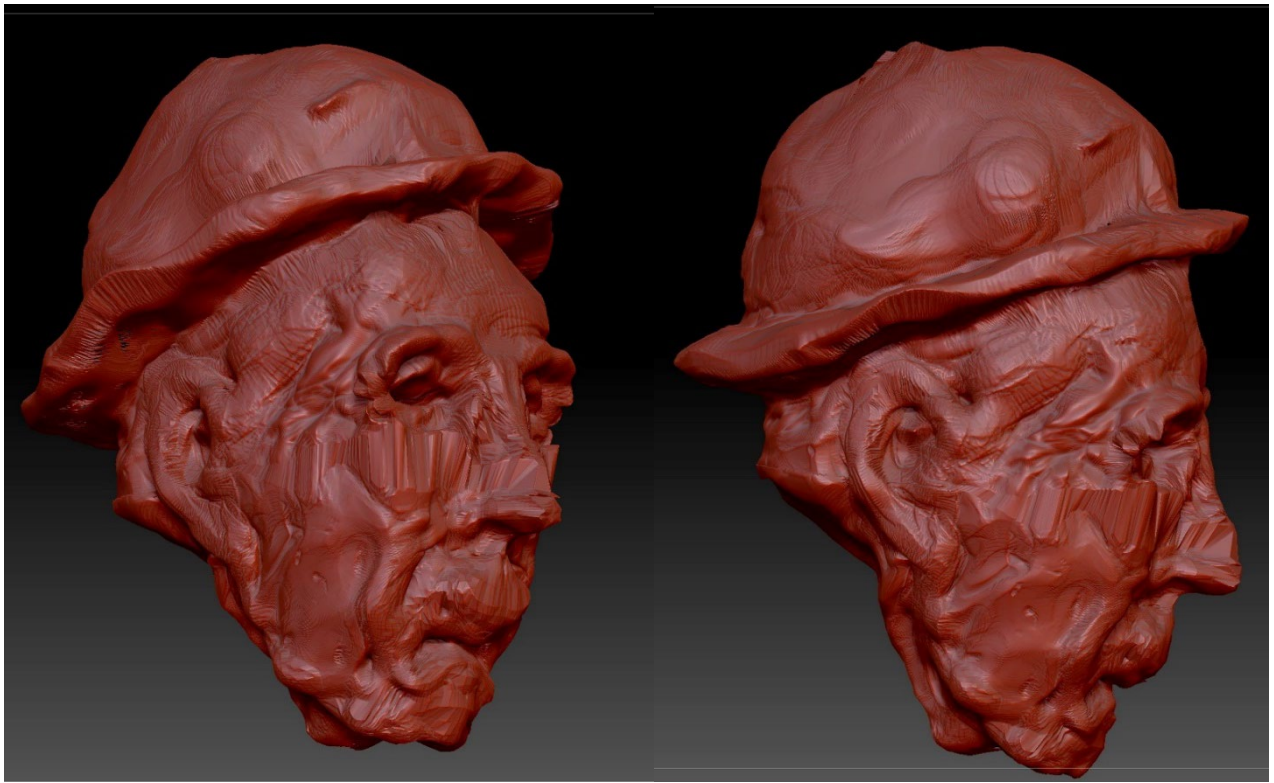
*Figure 20: The author directing the actors on the set and a final 3D animated shot of that scene.*

*Source: Marcos Carrasco*

## CHAPTER THREE: THE PROCESS

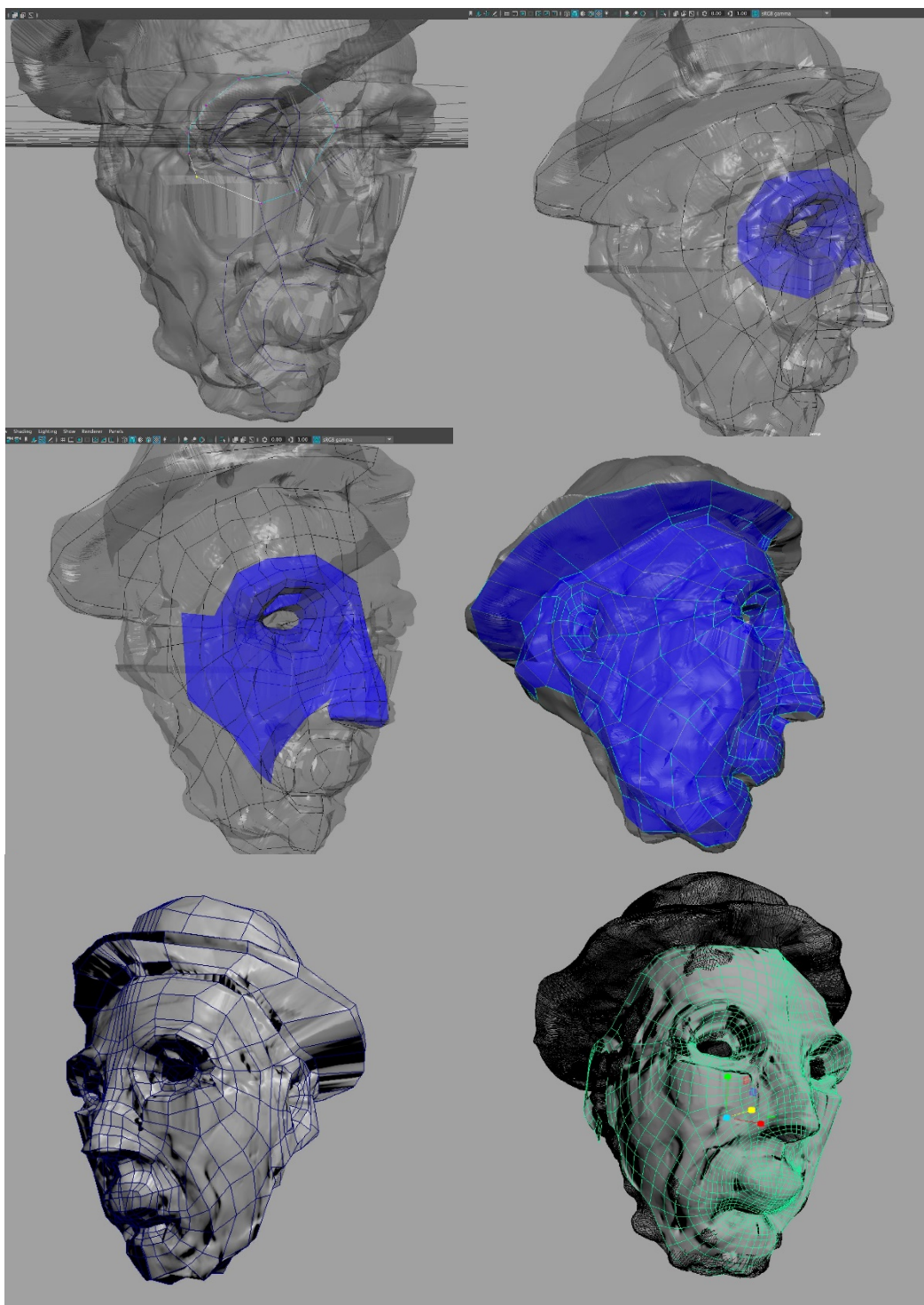
### Modeling, Lighting, and Texturing

I sculpted my Character's head in ZBrush, then I exported the normal map from ZBrush to Autodesk Maya, and performed a retopology in Autodesk Maya. After that, I UV mapped my character's head and applied the normal map. This is a very standard pipeline for a game engine.



*Figure 21: Screen capture of the Character's head sculpted in ZBrush.*

*Source: Marcos Carrasco*

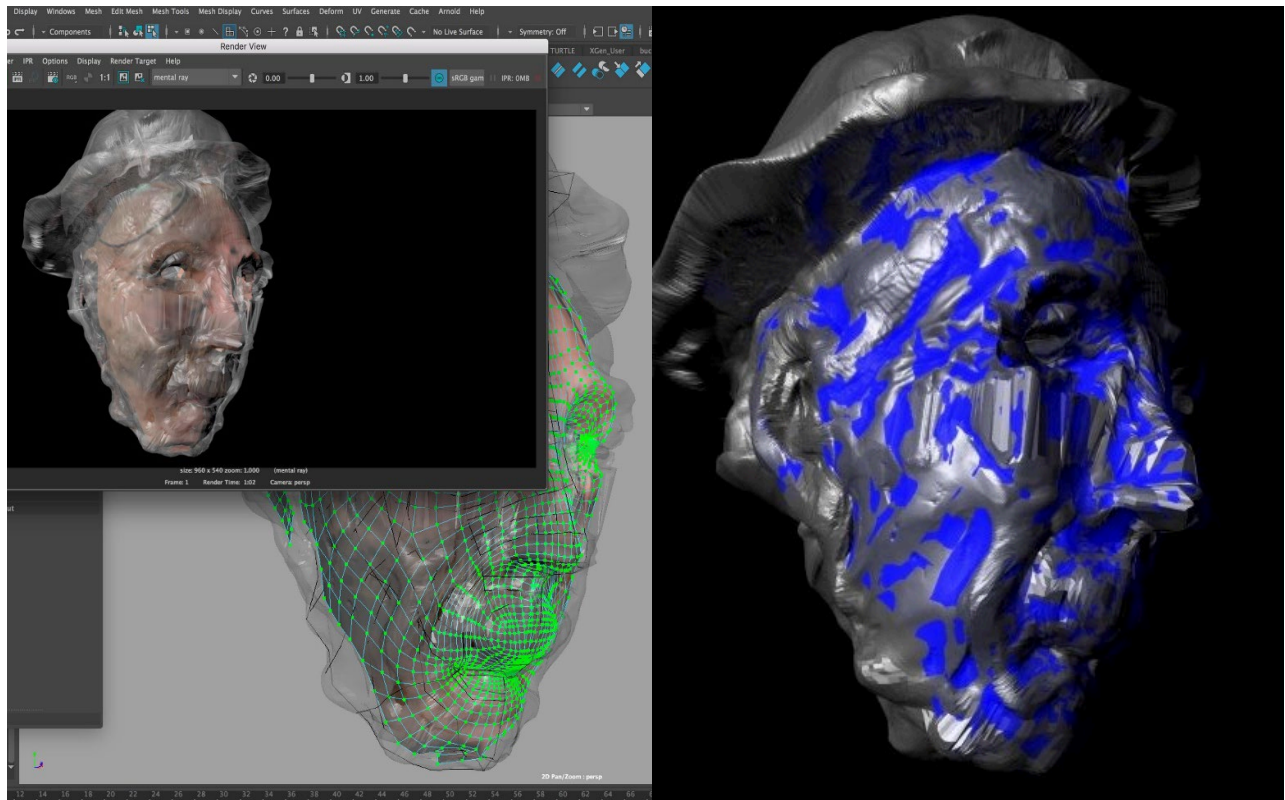


*Figure 22: Screen capture showing the retopology in Autodesk Maya. After sculpting in ZBrush.*

*Source: Marcos Carrasco*

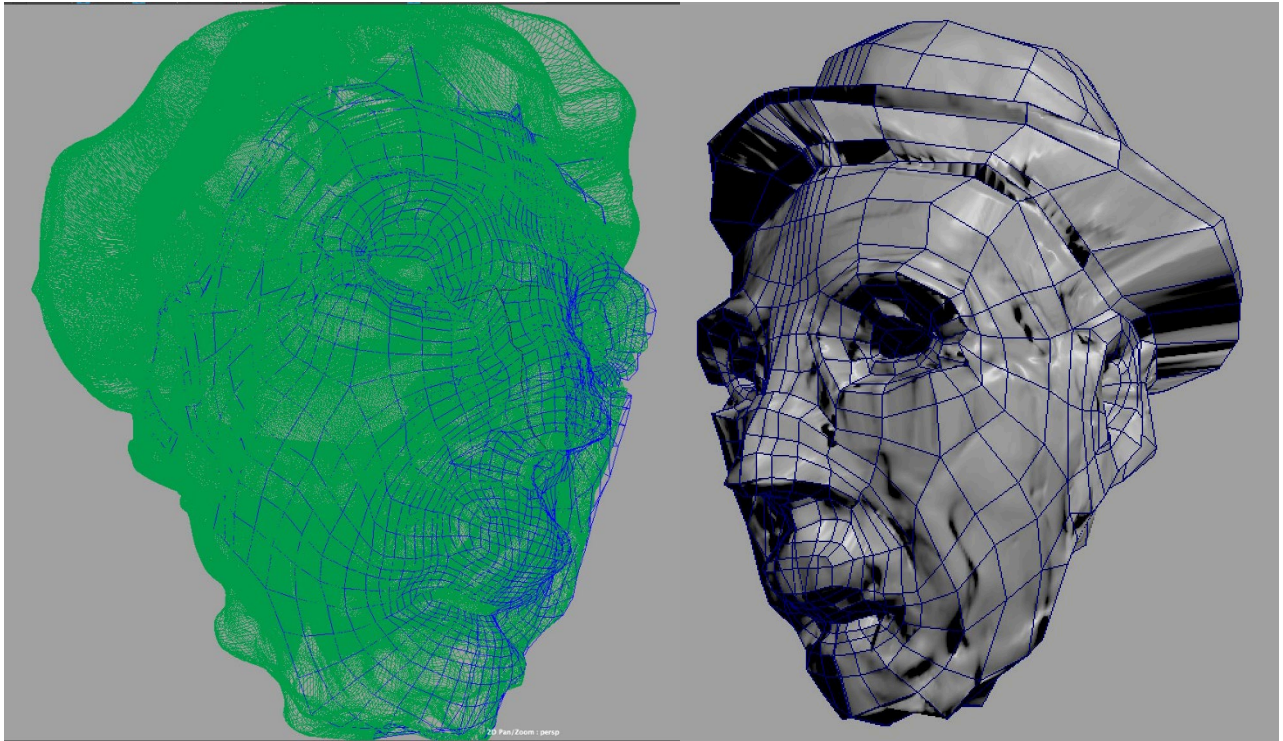


After that, I created a proper edge flow and created the UV's. I transferred the normal maps to my final character mesh. All this is done in Autodesk Maya.



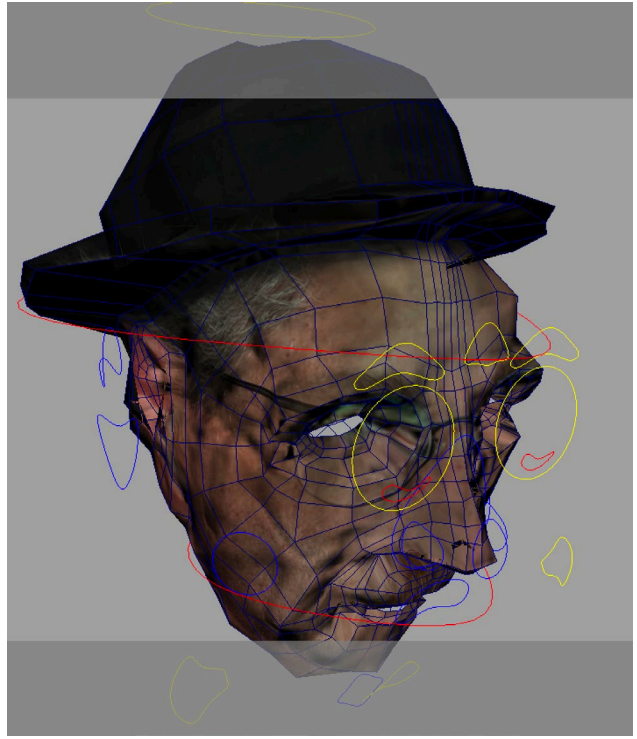
*Figure 23: This image shows the process of transferring normal maps into the new mesh.*

*Source: Marcos Carrasco*



*Figure 24: Image comparing the original .obj and the new mesh with proper topology with normal maps.*

*Source: Marcos Carrasco*



*Figure 25: Screenshot of the character's UV map, Head rigged with normal maps, and lighting test.*

*Source: Marcos Carrasco*



## Technical Direction

For my lighting, I created two different sets of three-point lighting. I grouped the lights and constrained them to each head and applied light linking. I used spotlights and rendered in Arnold Renderer, and composited in Adobe After Effects to create the videos that are projected into the VR screens. This part of the process is very standard, and so was my characters' rigging. I created several blend shapes, and use deformers and joints to rig the character's face. I also used follicles on NURBS (Flexi-plane) to rig part of the characters' lips.

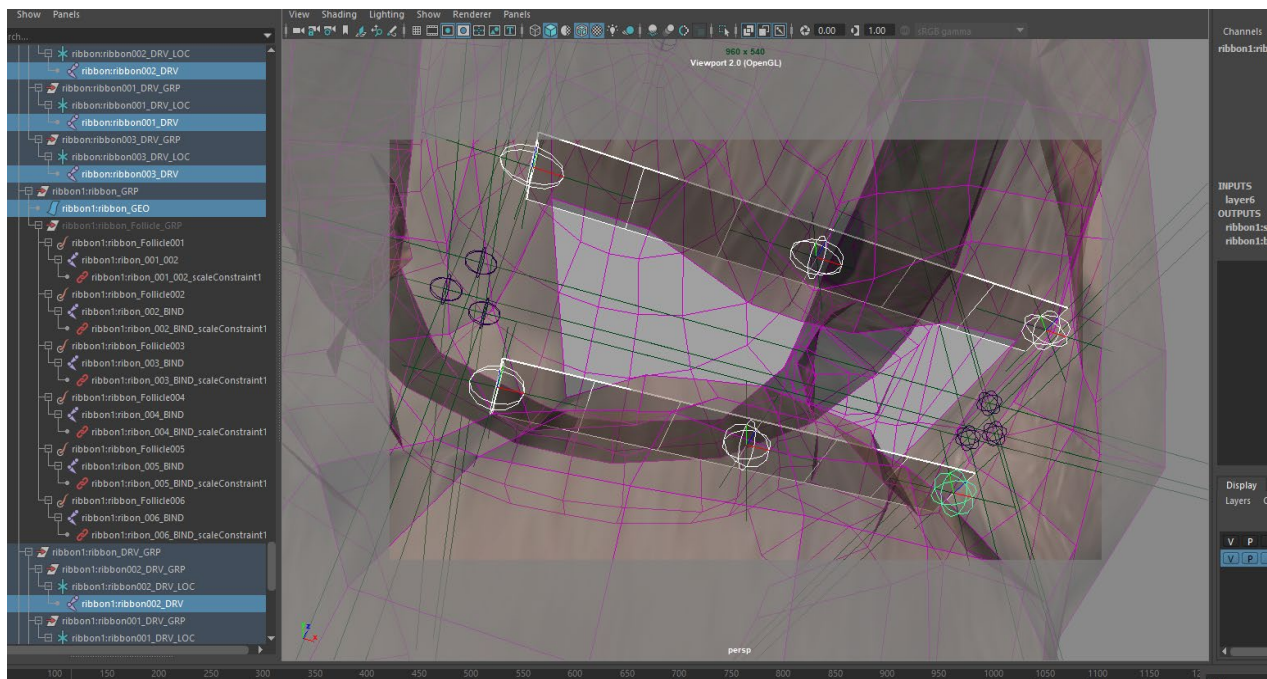


Figure 26: Screenshot of the character's lips flexy-planes .

Source: Marcos Carrasco

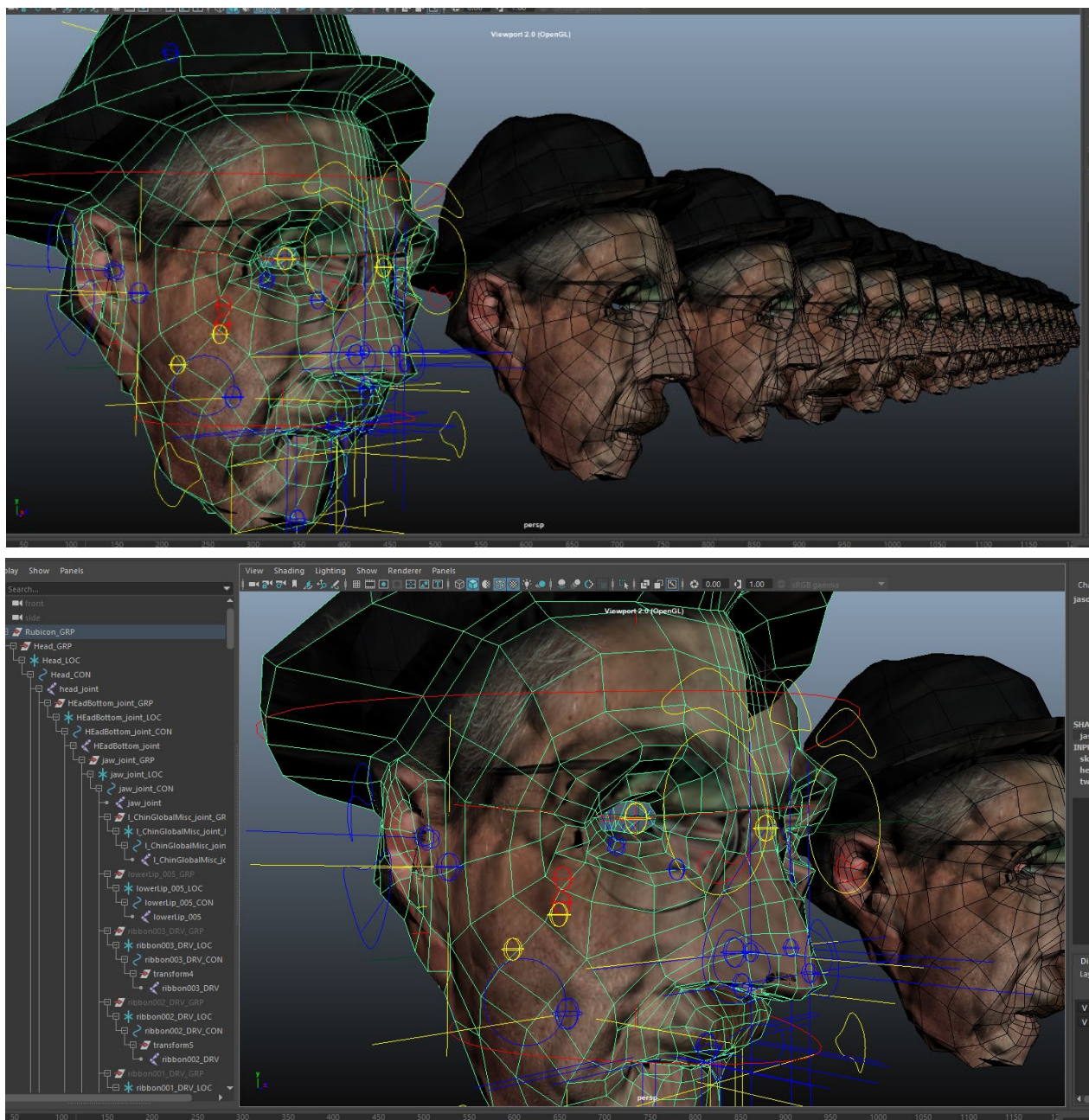


Figure 27: Screenshot showing the character's blend shapes, outliner, and joints.

Source: Marcos Carrasco



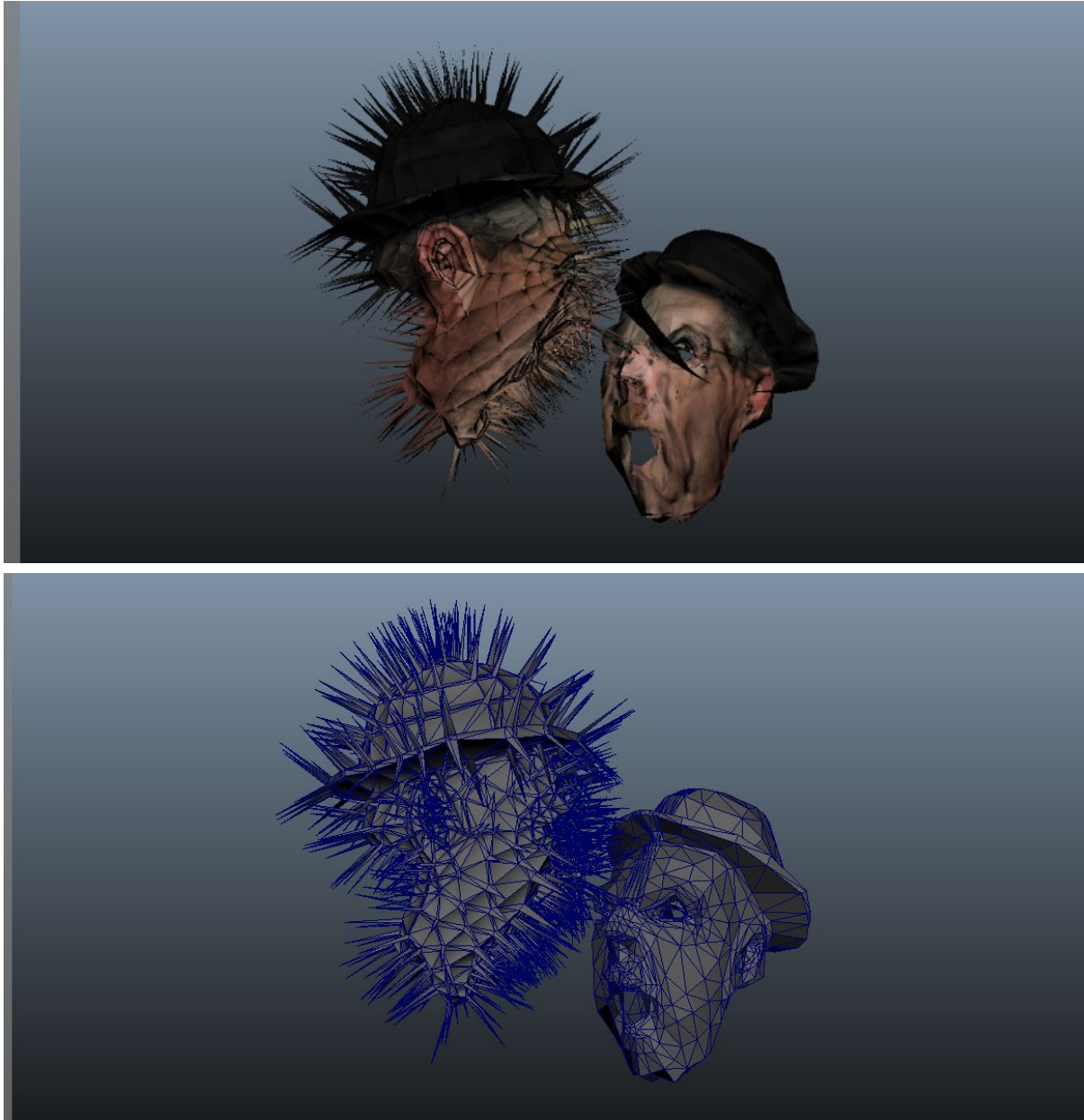
### Animation, Camera and Mesh Distortion

I triangulated my character's mesh, (using triangles instead of quadrangles), so the meshes can be exported into Unreal Engine. This is because I have a non-standard procedure in my animation. I extruded my character's vertexes and animated this to create the spikes. Also, I used wave deformers to create a mesh distortion effect. This is another trademark in my style that I used before with moving textures in my film *HERE (2014)* by animating the distorted UV map. I use glitches as an unorthodox effect in standard animation. I use these unconventional deformations on purpose to express extreme emotions. I like to explore unusual ways to create interesting effects in my films. Usually, I mix techniques that go from the game industry, motion graphic industry, and experimental animation also.



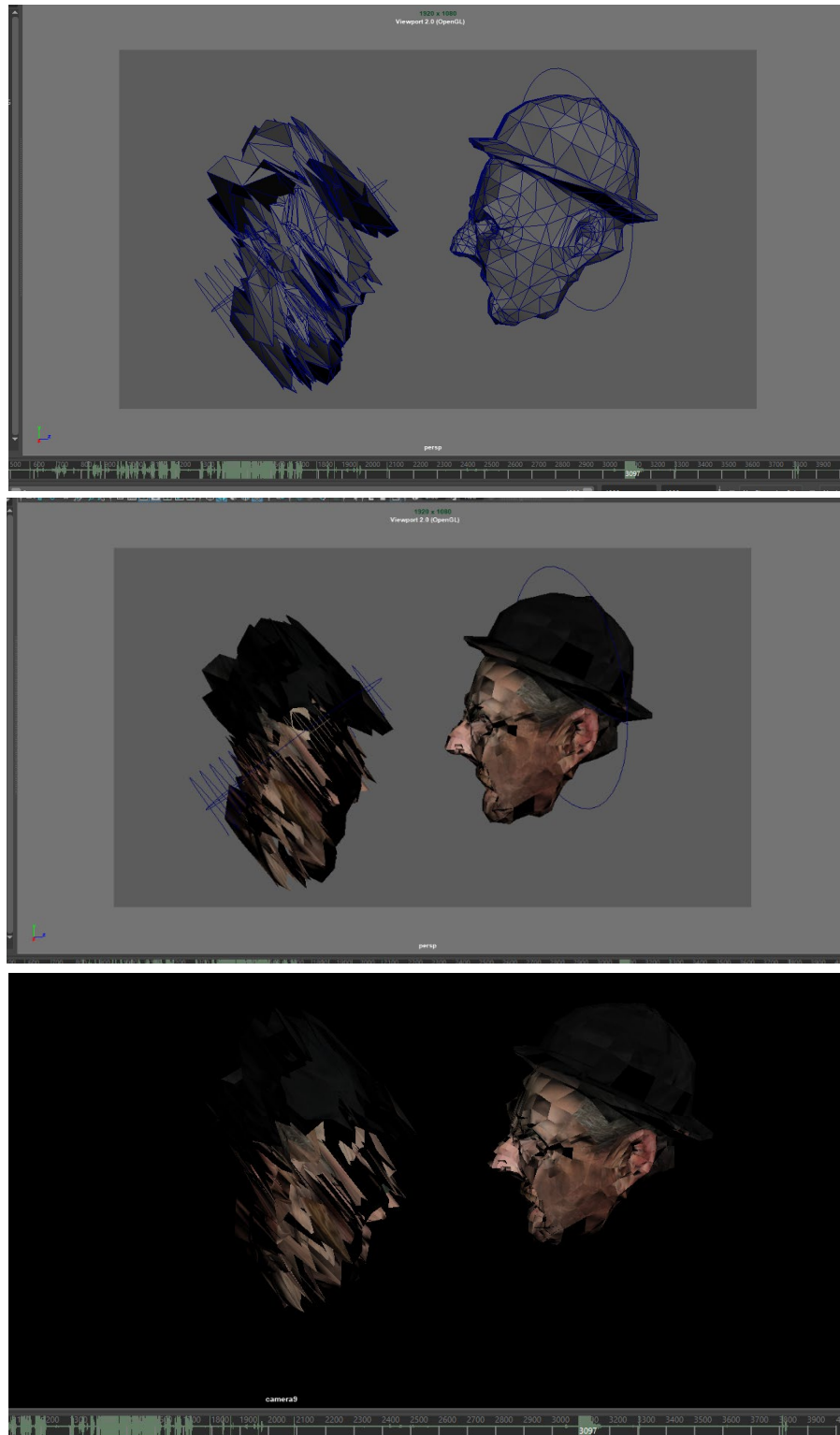
*Figure 28: A frame of the author's film HERE (2014), showing the animated texture.*

*Source: Marcos Carrasco*



*Figure 29: Screenshots of the extruded vertexes on the triangulated meshes.*

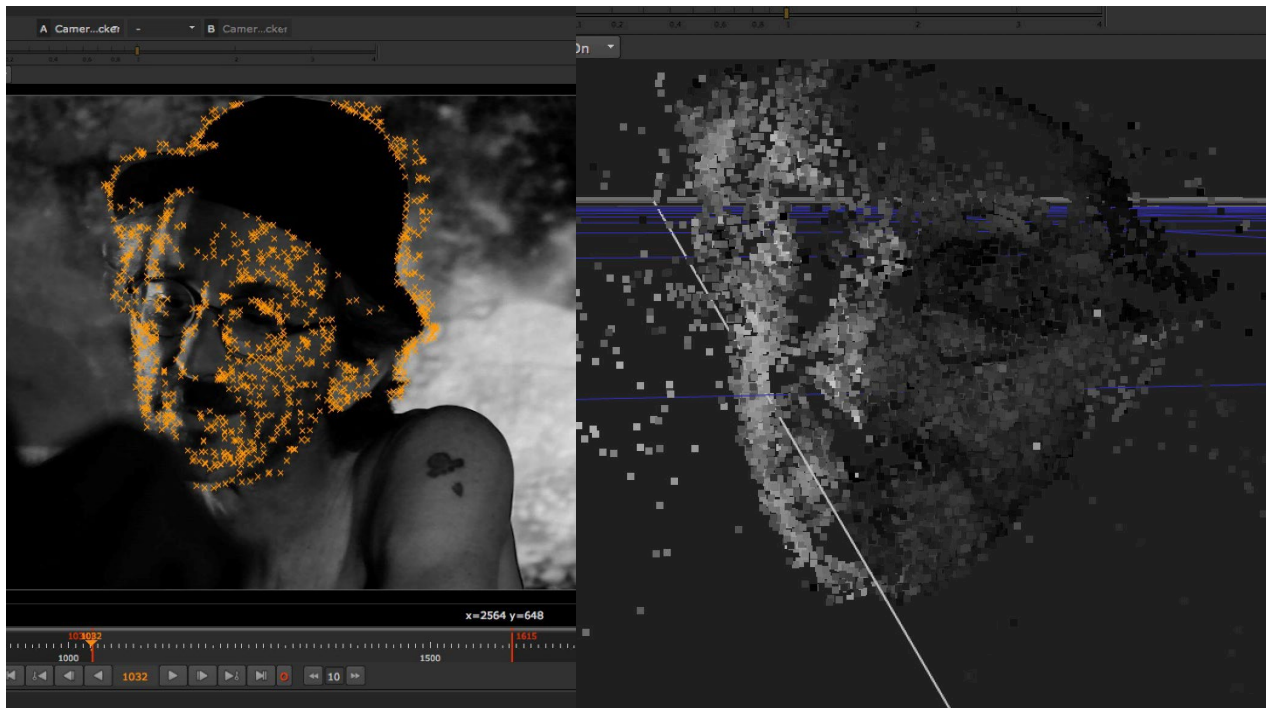
*Source: Marcos Carrasco*



*Figure 30: Screenshots and final render showing the wave deformer distorting the head.*

*Source: Marcos Carrasco*

I animated both meshes simultaneously and I decided to render them with different virtual 3D cameras. I chose to use a long shot for the character dialogue in one and cuts with live-action in another video. All this was done to create different versions projecting simultaneously inside my VR installation. This creates a multi-channel experience. I even tracked Jason's face in Nuke during an early stage of production. But later, I decided not to use this tracking because it was not enhancing the film.



*Figure 31: Screenshot of an unused early face tracking in NUKE done for the thesis VR film.*

*Source: Marcos Carrasco*



*Figure 32: Screenshot of the animation process performed in Autodesk Maya.*

*Source: Marcos Carrasco*



My lighting choice is dramatic and inspired by the techniques of Tenebrism. A style of lighting made famous by Renaissance painter Caravaggio's (1571-1610). I used three-point lighting for each head, grouped and constrained to follow the character's action.

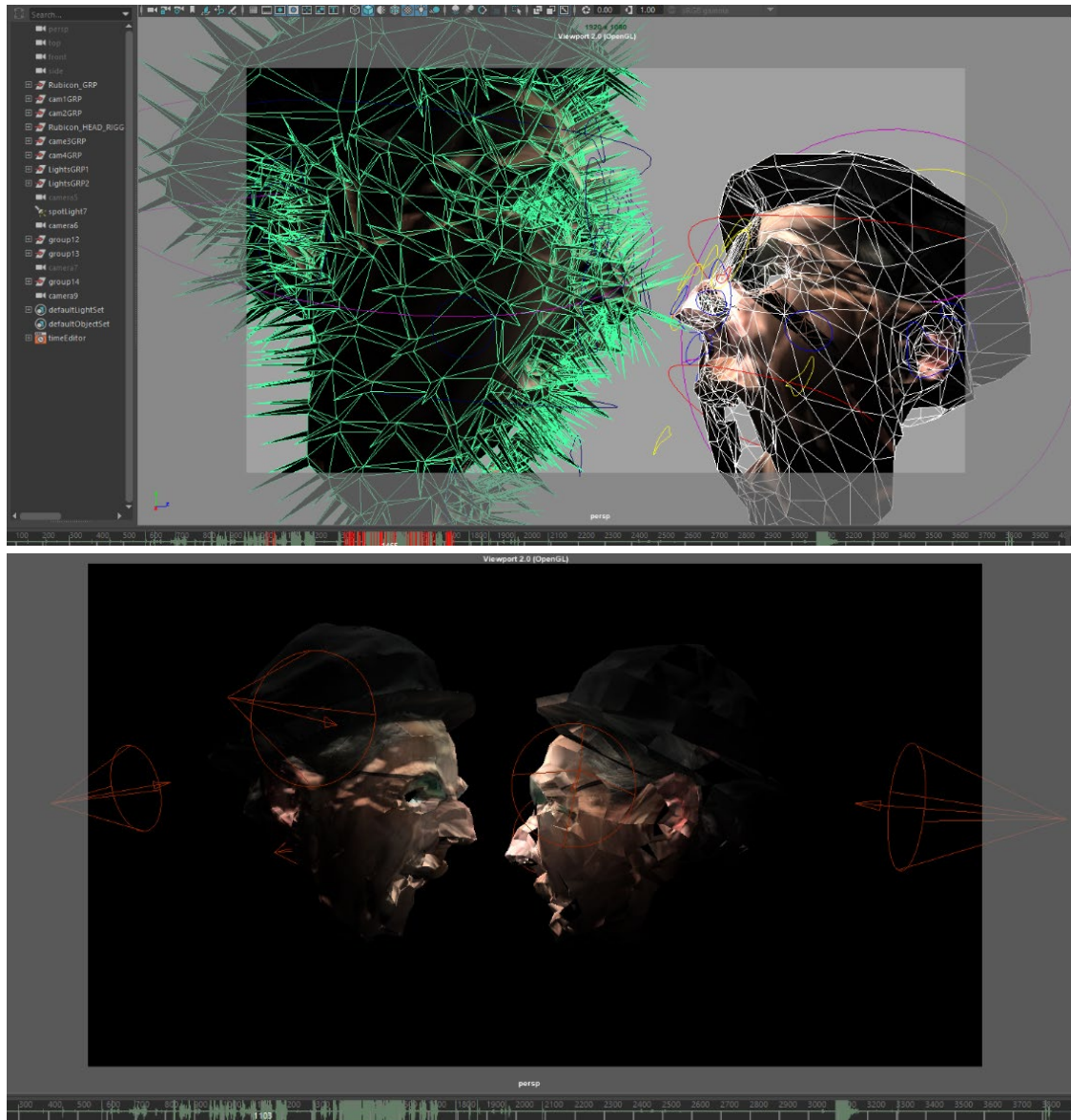


Figure 33: Screenshot showing the spotlight cones and the effect on my character's meshes.

Source: Marcos Carrasco



Figure 34: Screenshot of all the elements in the Autodesk Maya scene, and a fully rendered frame.

Source: Marcos Carrasco



*Figure 35: Screenshot featuring a fully rendered animated sequence of RUBICON: The Dialectic.*

*Source: Marcos Carrasco*



### Music Composition and Sound

My soundtrack for *RUBICON: The Dialectic* was composed in Apple Garage Band.

I use dissonances and an ostinato (constant repetition of a musical motif) using diminished chords in the style of the film, *Psycho*, by British director Alfred Hitchcock. For the epilogue, when the 2D animation starts I use drums and a major progression to add an uplifting mood to the piece. I did several iterations on the dynamics and dominance of the music in my soundtrack and decided to leave it for some areas, more as a “color” resource, instead of having the music playing constantly. This adds more mystery to the VR piece. I recorded the dialogue live on stage, as shown in Figure 36.



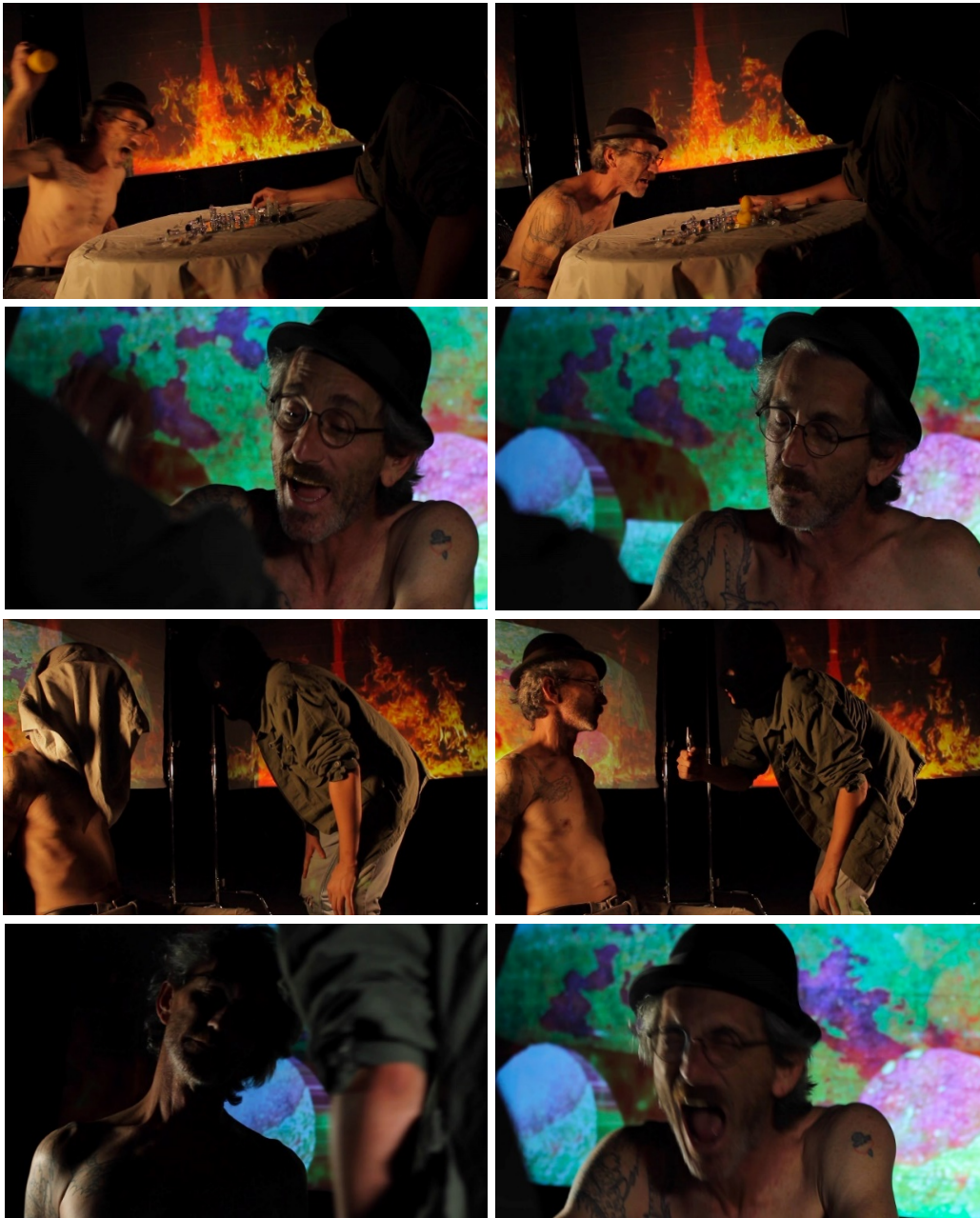
*Figure 36: A photo of the set on the stage, before shooting the live-action footage and recording the dialogue.*

*Source: Marcos Carrasco*

### Filmmaking and Directing Actors

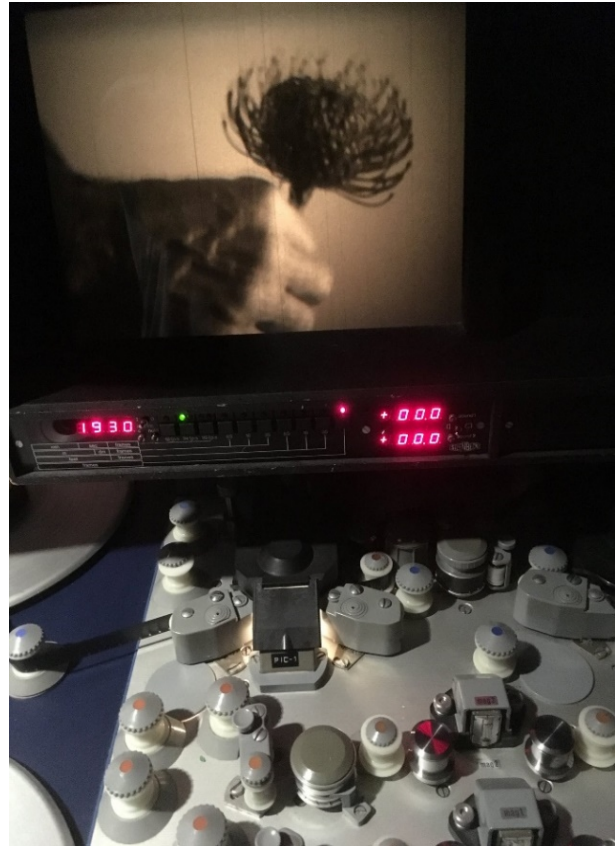
To direct the actors, I created a set with projectors and shower curtains as screens at the UCF Nicholson School of Communication Sound Stage. It was important to film giving the actors a full experience of the context, so I created an environment by projecting flames on the shower curtain screens, while directing them with the Method, developed by Konstantine Stanislavski (1863-1938). I learned the Method in 1990 with the Spanish actress Pilar Tordera, and I applied it to the filming assigned in my Advance Directing Workshop Class with professor Anthony Major. I use Gabe Blanco as the antagonist and Jason Fronzcek as the protagonist. None of them were actors. Therefore I applied the Method to help them perform. I tell each one the acting directions. As they played chess, I asked Jason not to play properly to trigger the expected Stanislavski's Method reactions. This allegory transcended the chess game into an explosion of emotions that I directed while filming and recording their acting. I kept giving them the instructions to maintain in context with the plot: Oppressor vs Oppressed.

I also used a 16mm Bolex camera to shoot some of my footage, and then transferred this footage to video using the flatbed, as shown in Figure 38.



*Figure 37: Images of the live-action sequence filmed for RUBICON: The Dialectic.*

*Source: Marcos Carrasco*



*Figure 38: Images of the editing process of the live action for my VR film, and the 16mm Camera that I used.*

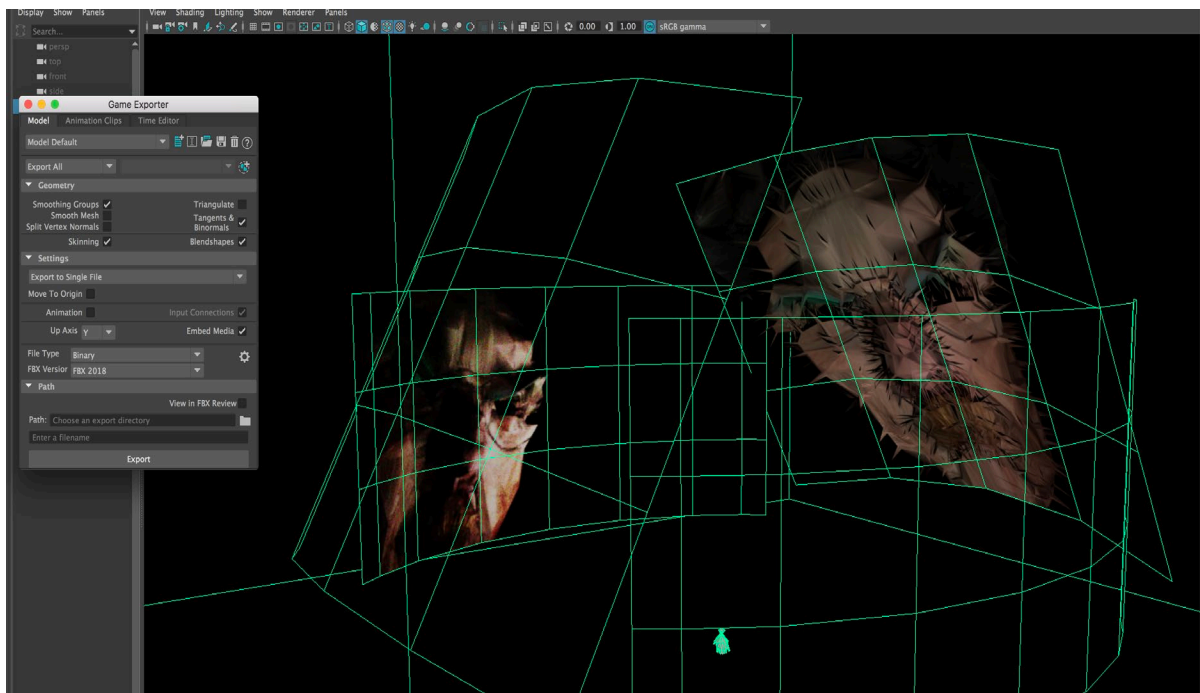
*Source: Marcos Carrasco*



## CHAPTER FOUR: MAYA, UNREAL ENGINE, AND VR

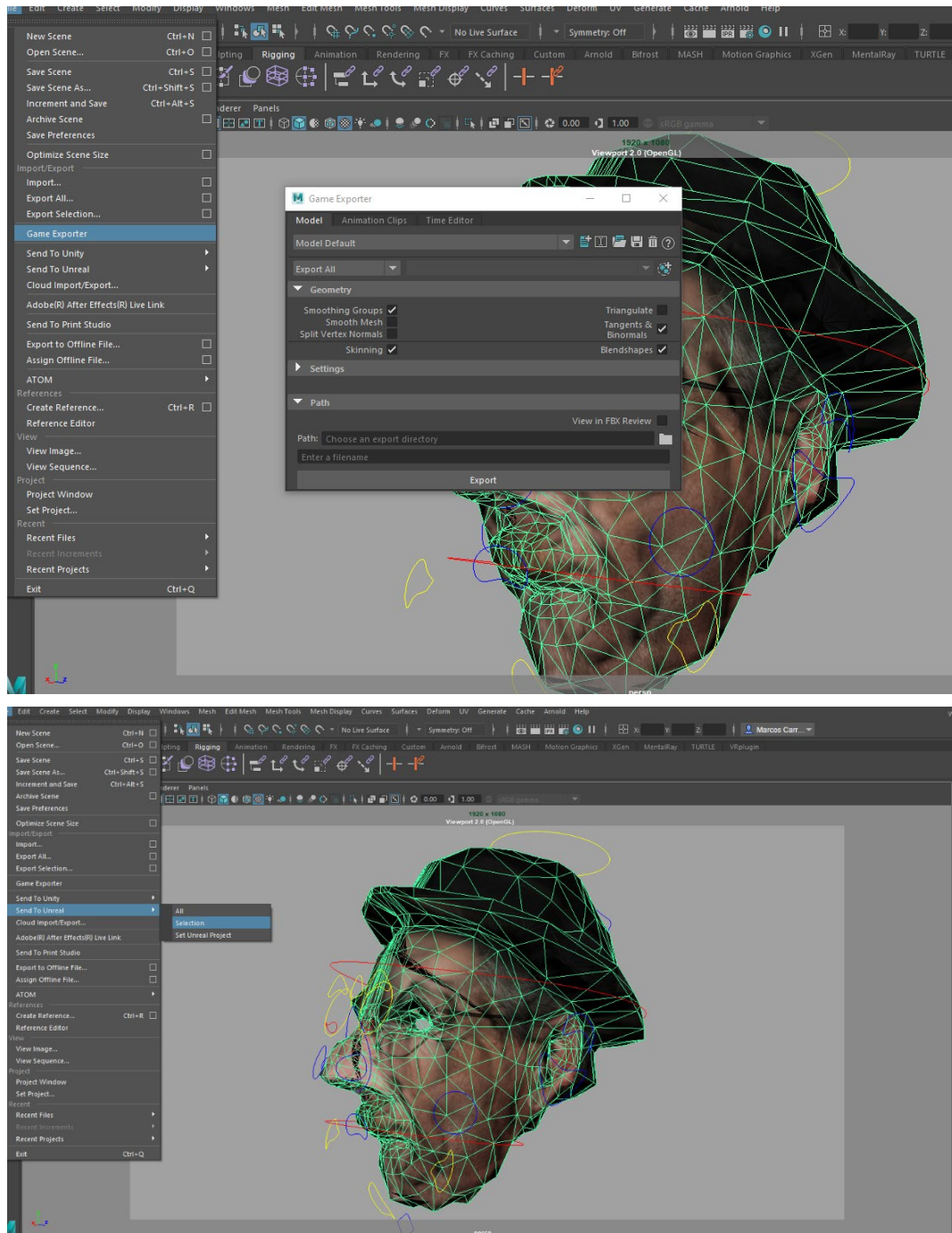
### Autodesk Maya to Unreal Engine Pipeline

The pipeline from Autodesk Maya into Unreal Engine is very straightforward. Autodesk Maya has many different ways to export assets and animation to game engines: Game Exporter, Send to Unreal, or Send to Unity. I used Game Exporter and Send to Unreal. Once the model of the environment was ready, I exported the meshes as a .fbx file. As I mentioned before, I triangulated my character's meshes because of the extruded vertexes. Triangles are the solution to Unreal accepting my character's complex subdivided geometry. The environment was just polygon planes, so there was no need to triangulate the mesh.



*Figure 39: Image of the screen meshes created in Autodesk Maya before exporting to Unreal Engine.*

*Source: Marcos Carrasco*



*Figure 40: File> Game exporter or File> Send to Unreal, two ways to export geometry from Autodesk Maya to Unreal Engine.*

*Source: Marcos Carrasco*

To export complex animation to Unreal Engine from Maya I used Alembic Cache. This is because I distort and extrude the vertexes of my character's meshes. For this, you must select the meshes and go to *Cache>Alembic Cache> Export Selection to Alembic*

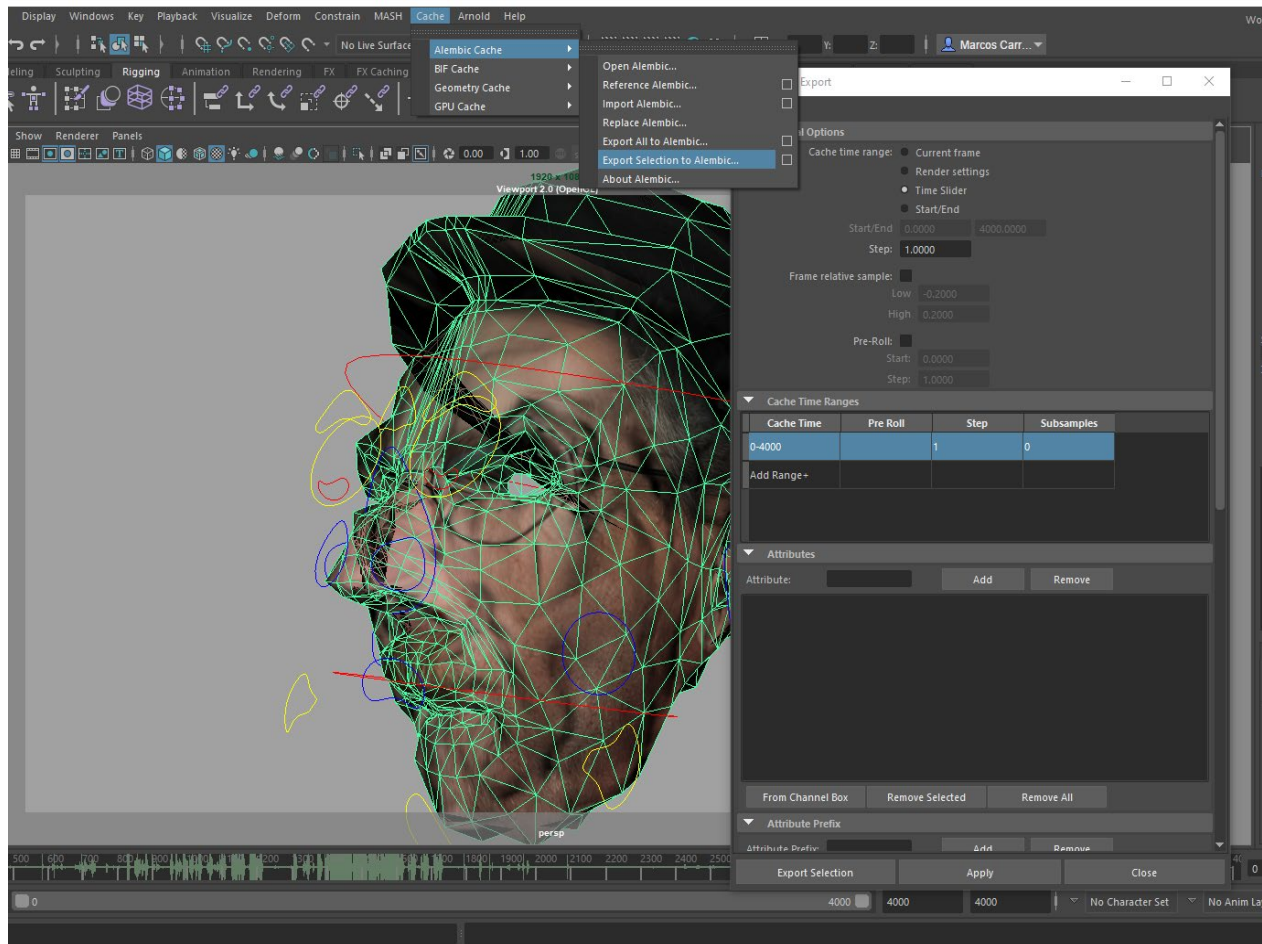


Figure 41: The Image shows an Alembic Cache, *Cache> Alembic Cache> Export Selection to Alembic*.

Source: Marcos Carrasco

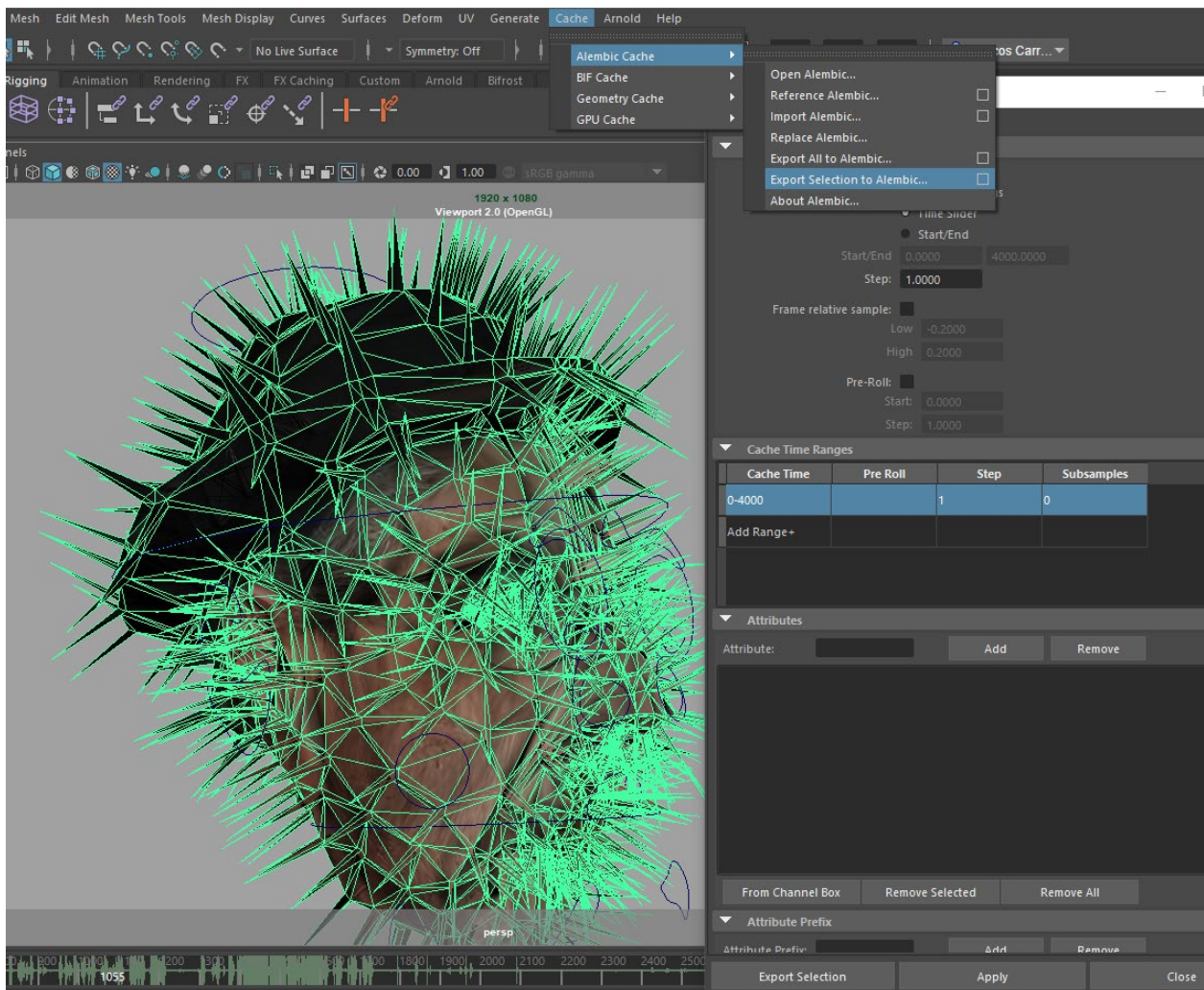


Figure 42: Image showing Alembic Cache of the animated extrusion, Cache> Alembic Cache> Export selection to alembic.

Source: Marcos Carrasco



## Setting up Everything Inside Unreal Engine

To develop my VR installation film *RUBICON: The Dialectic*, I chose the Unreal Engine, version 4.25.3, on an Alienware Area 51 laptop with Windows 10 OS. A lot of what I developed, and learned was by researching and experimenting. The Unreal Engine documentation and Epic Games website have plenty of videos with all the information to build and develop games on stand-alone or in VR. Every artist can creatively use the tools and techniques to create his/her art piece. In this chapter, my intention is not to teach Unreal Engine techniques but to describe my process. For learning Unreal Engine in-depth, please refer to the Unreal Engine Documentation or Unreal Engine website. The first thing I did after installing the Unreal Engine from Epic Games was to create a VR project.

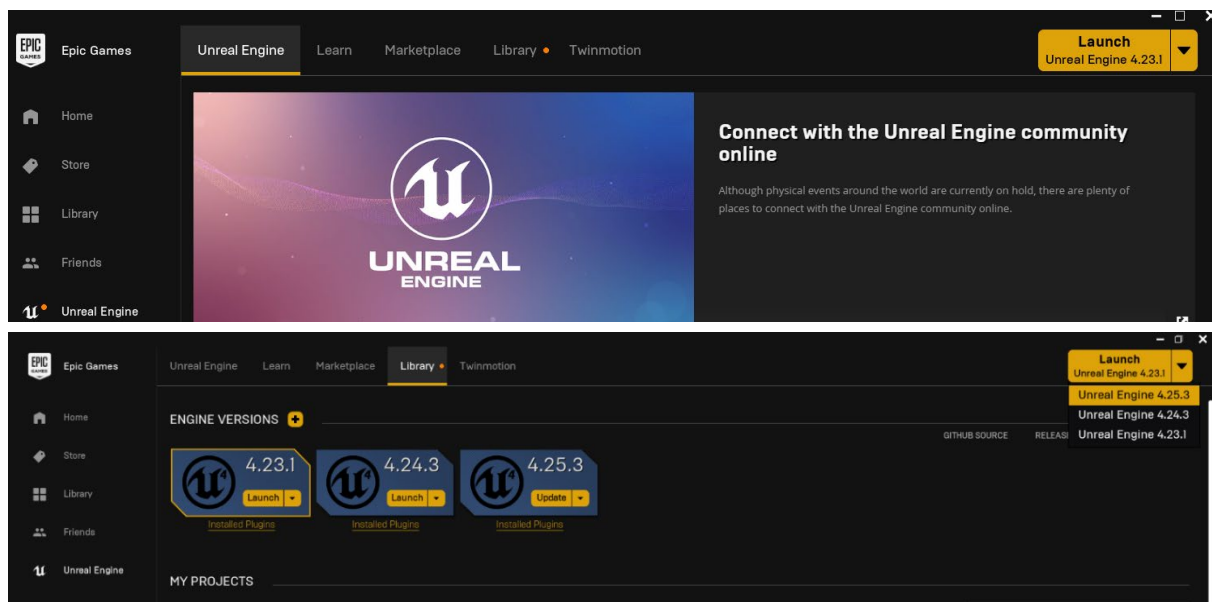


Figure 43: Screenshot showing the Epic Games website, where you can download the Unreal Engine.

Source: Marcos Carrasco

The Unreal Engine has different templates for developing projects. I used the Blueprints because I do not know C++. Blueprints are a series of node-based templates that are very versatile because of their visual approach. Unreal Engine documentation covers several chapters on how to work with this. I chose VR Blueprint because it already had a node-based structure that I could adapt and modify to my project.

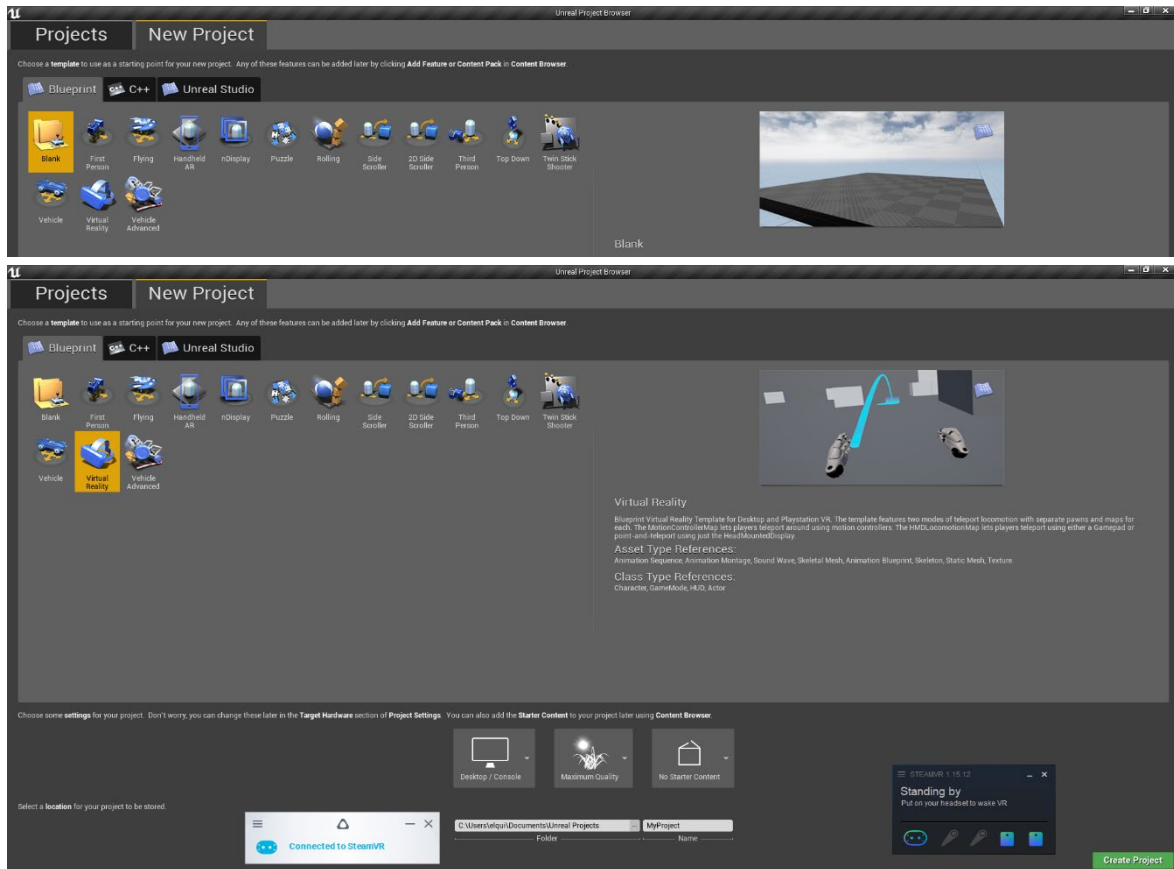


Figure 44: Screenshot of the Unreal Engine interface while creating a VR blueprint project.

Source: Marcos Carrasco

Once the project is created we must create a map. A map is a blank virtual space in the Unreal Engine where we build our environment and bring our assets. I named mine *Instalacion* Installation in Spanish.

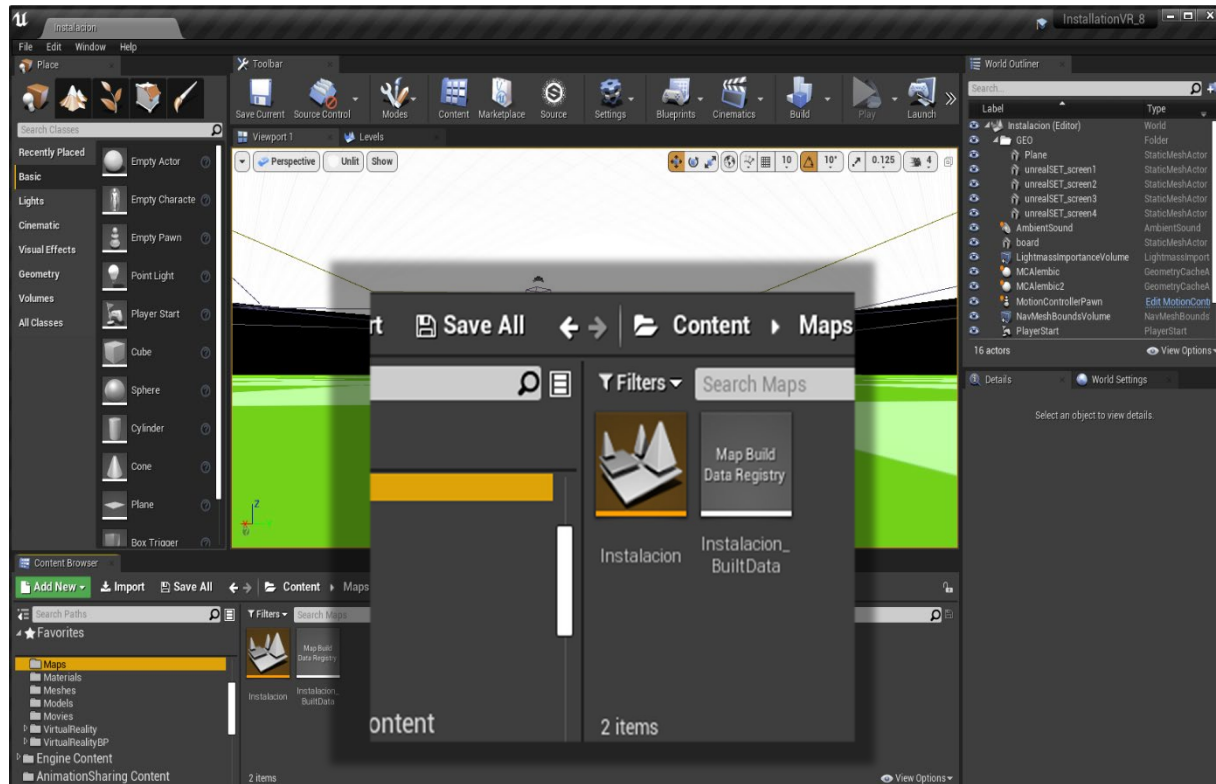


Figure 45: Screenshot of the Unreal Engine interface while creating a Map.

Source: Marcos Carrasco

To import animation and meshes, there are two different types of meshes that I used in my VR installation: A Static Mesh and a Skeletal Mesh. The Static mesh is the mesh that builds my environment, in this case the screens of my VR world. The Unreal Engine also has an interface for building this from scratch, but I decided to use the ones that I already created in Autodesk Maya. After the meshes are imported, an RV media player; a media node is connected to the geometry and the desired video is used as a texture to wrap the geometry. This is the way to use a plane as a video screen.

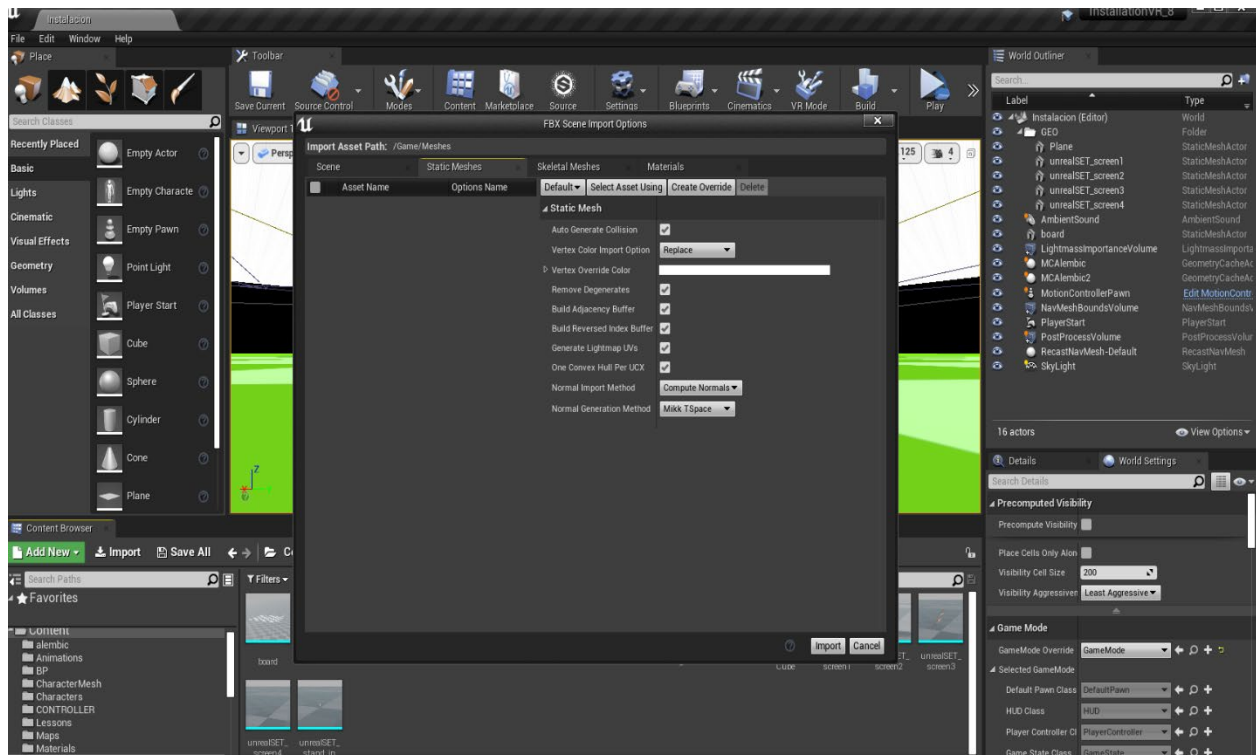


Figure 46: Screenshot of the Unreal Engine interface importing the environment .fbx file from Autodesk Maya, as Static Meshes.

Source: Marcos Carrasco

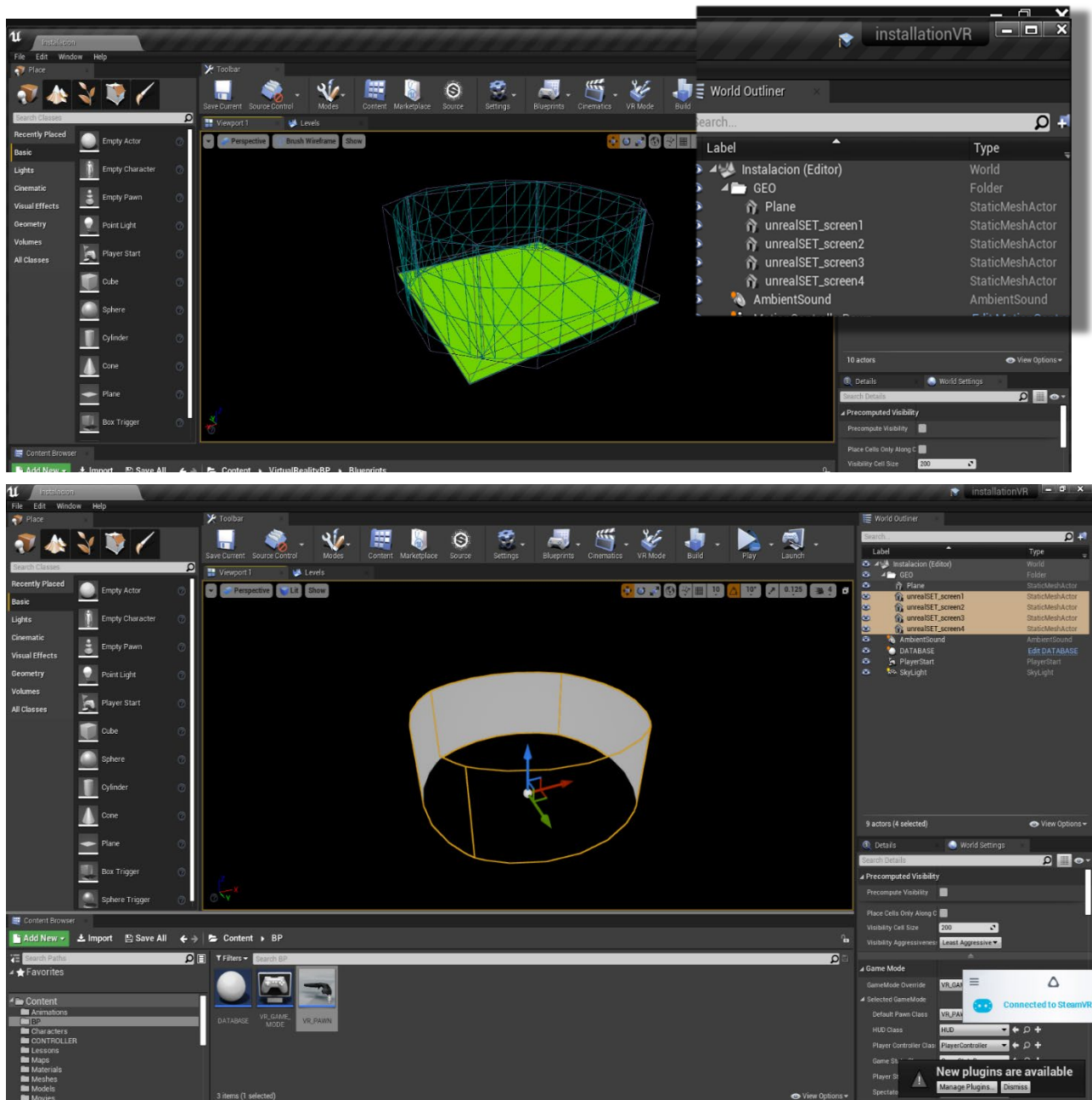


Figure 47: Image showing the static meshes, and a plane that will hold a collider to keep the characters and everything else on the ground level.

Source: Marcos Carrasco

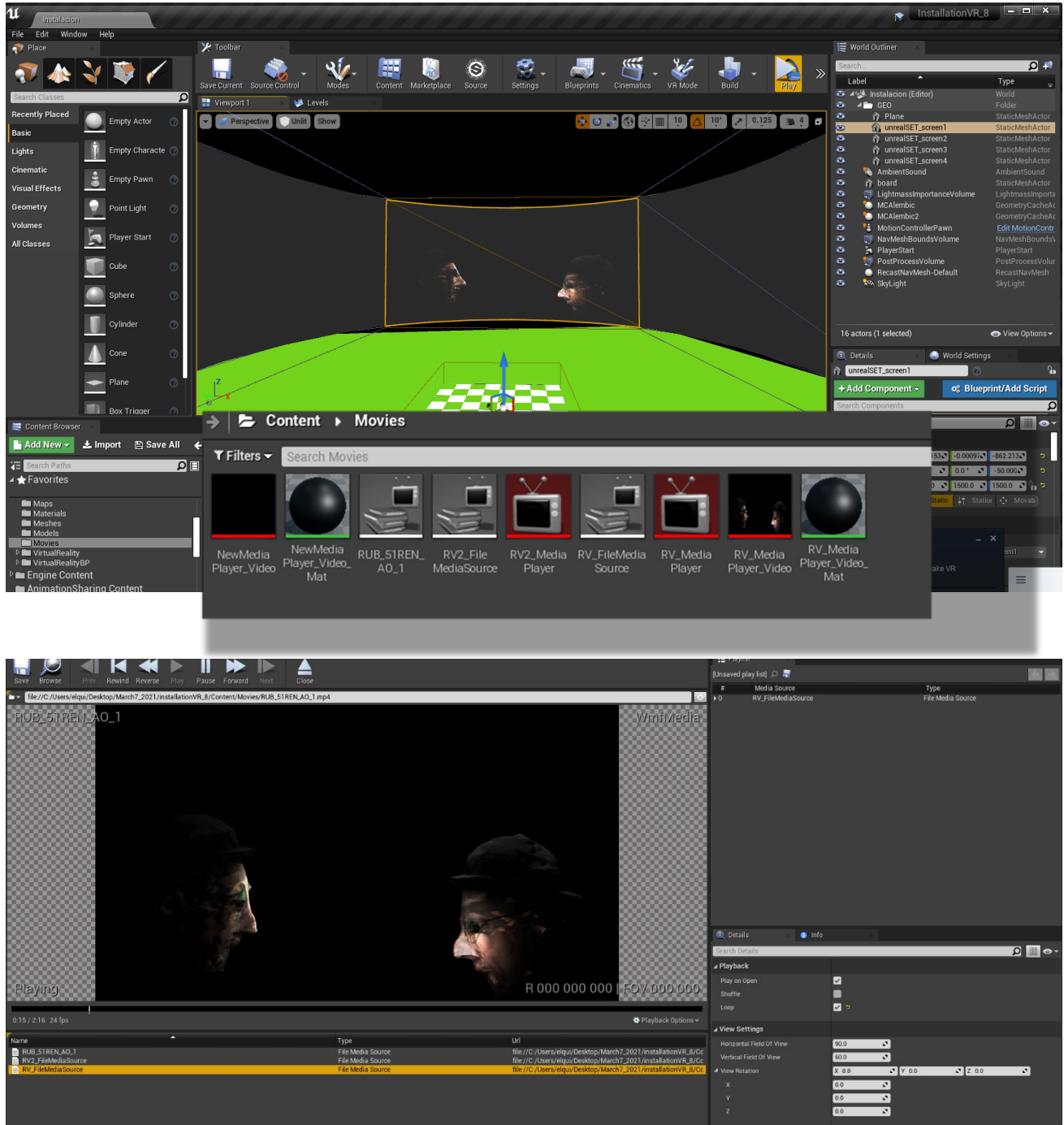


Figure 48: Screenshot showing the static meshes, now connected to an RV media player and wrapped with a video as a texture. The RV can play video and sound.

Source: Marcos Carrasco



The second type of Mesh is called a skeletal mesh. This is the animated mesh and this involves bringing the exported character's .fbx files that are in the export folder in my Autodesk Maya project folder. Unreal Engine does not accept polygons with more than four sides. An N-Gon is a polygon with more than four sides; The Unreal Engine will not allow importing geometry with an N-Gon, this is why I tessellated my characters. The complicated extra geometry generated by extruding vertexes in the character's meshes was solved by using triangles instead of quadrangles. To import the mesh you can drag it into your mesh folder in Unreal Engine or import it through the interface. Animation and geometry are imported separately. First the geometry, and second the Alembic cache. For more please check the Unreal Engine Documentation.

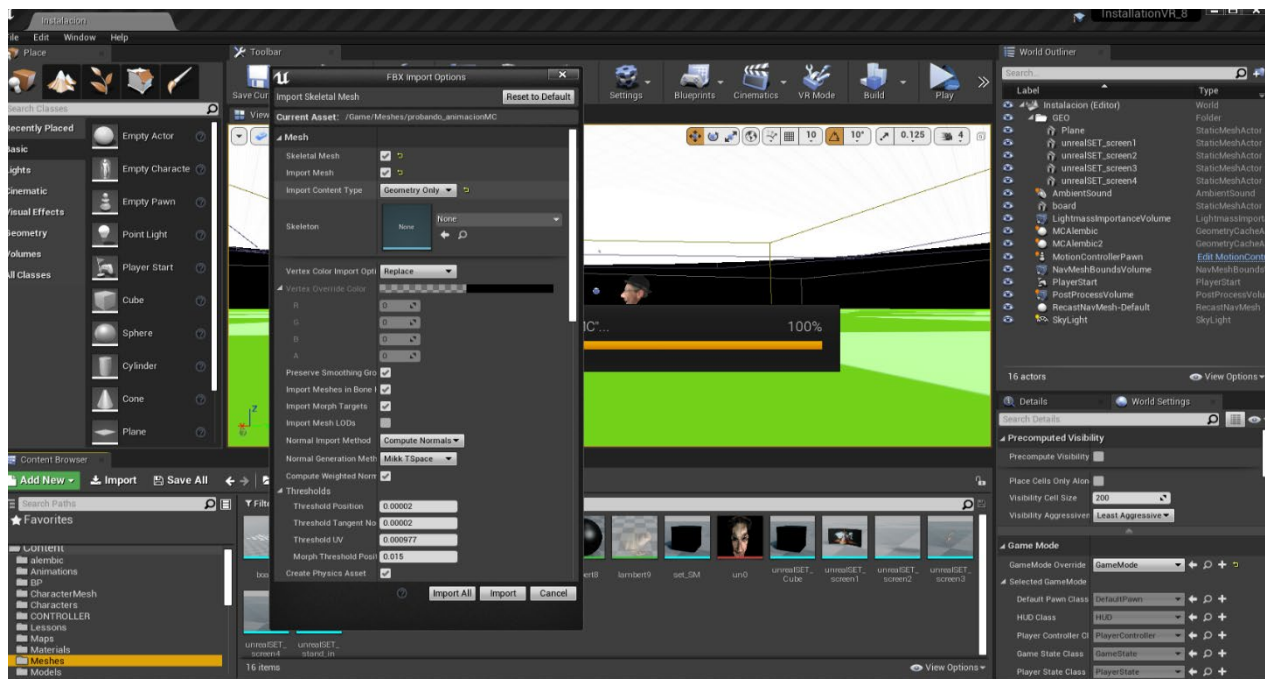


Figure 49: Screenshot showing how the Skeletal meshes of my characters are imported separately from the animation and with the textures.

Source: Marcos Carrasco

The next step involves importing the .abc files of the Alembic Cache. The file can be dragged into the alembic folder or the animation folder, depending on how the project is set. The method selected is **Geometry Cache**, which allows bringing the alembic cache from Autodesk Maya. **One very important step is to uncheck the Flatten Tracks box.** After this, the connection between the mesh and the alembic is done in Unreal, and so are the textures, please check the Unreal Engine Documentation on this.

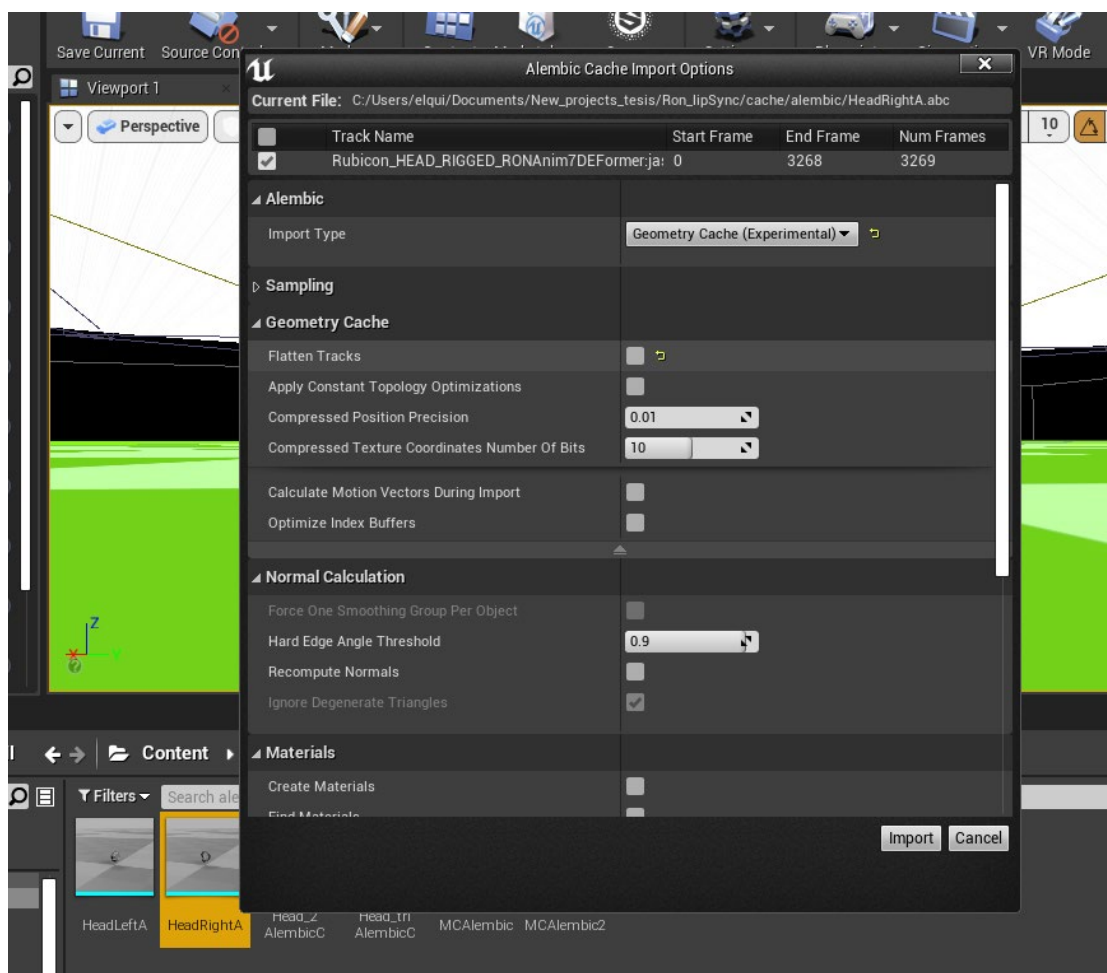


Figure 50: Screenshot showing how the Alembic Cache is brought into the Unreal Engine by using Geometry Cache and unchecking the Flatten Tracks option box. This step is critical.

Source: Marcos Carrasco



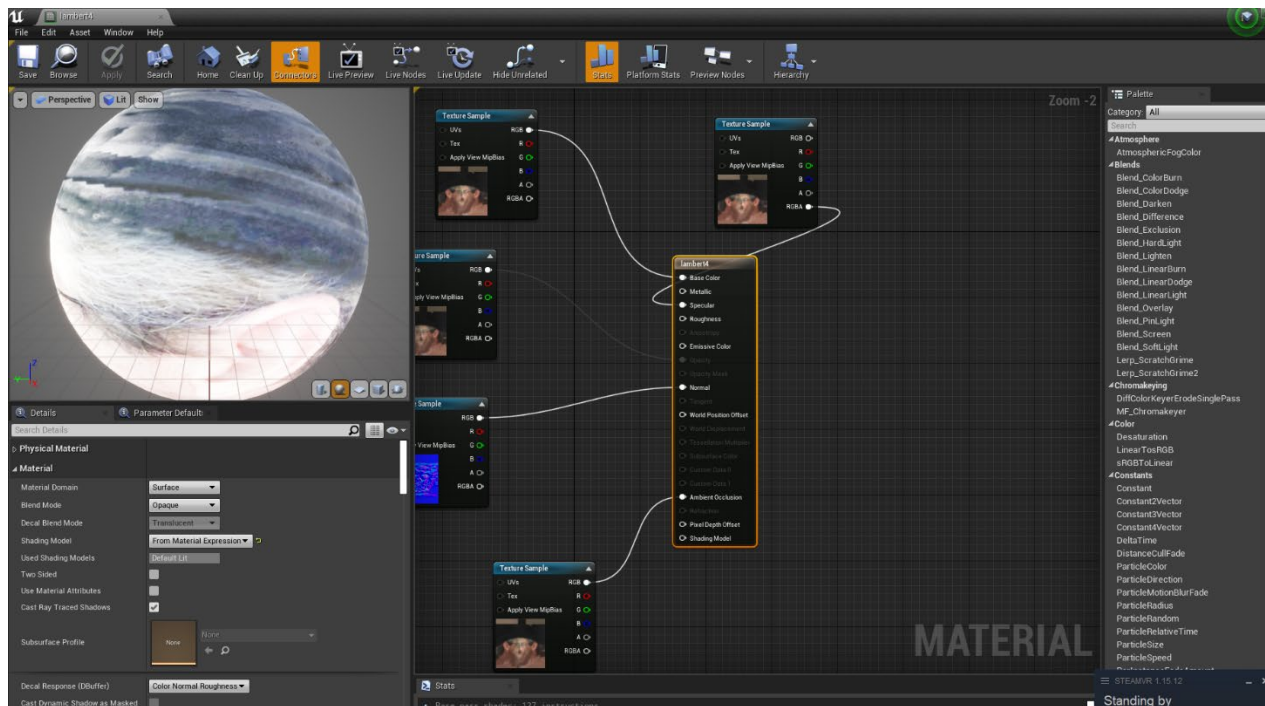


Figure 51: Screenshot of the node-network of my character's textures and normal maps.

Source: Marcos Carrasco

The next step of my process was to create collision and lights in the Unreal Engine selected geometry that builds my environment. Please refer to the Unreal Engine documentation on this. Another feature that I decided to add to my VR installation film was mobility as a way to interact. I rebuilt the node network of the teleport blueprint, the motion controller and substituted the robotic hands for the VIVE controllers. Also, I had to map the controllers so that VR installation would work with VIVE and the teleport system would function properly. This was a long process that was required so the VR project functioned with the VIVE VR controller's meshes provided by HTC VIVE. There are many recommendations for this in the Unreal Engine Documentation.

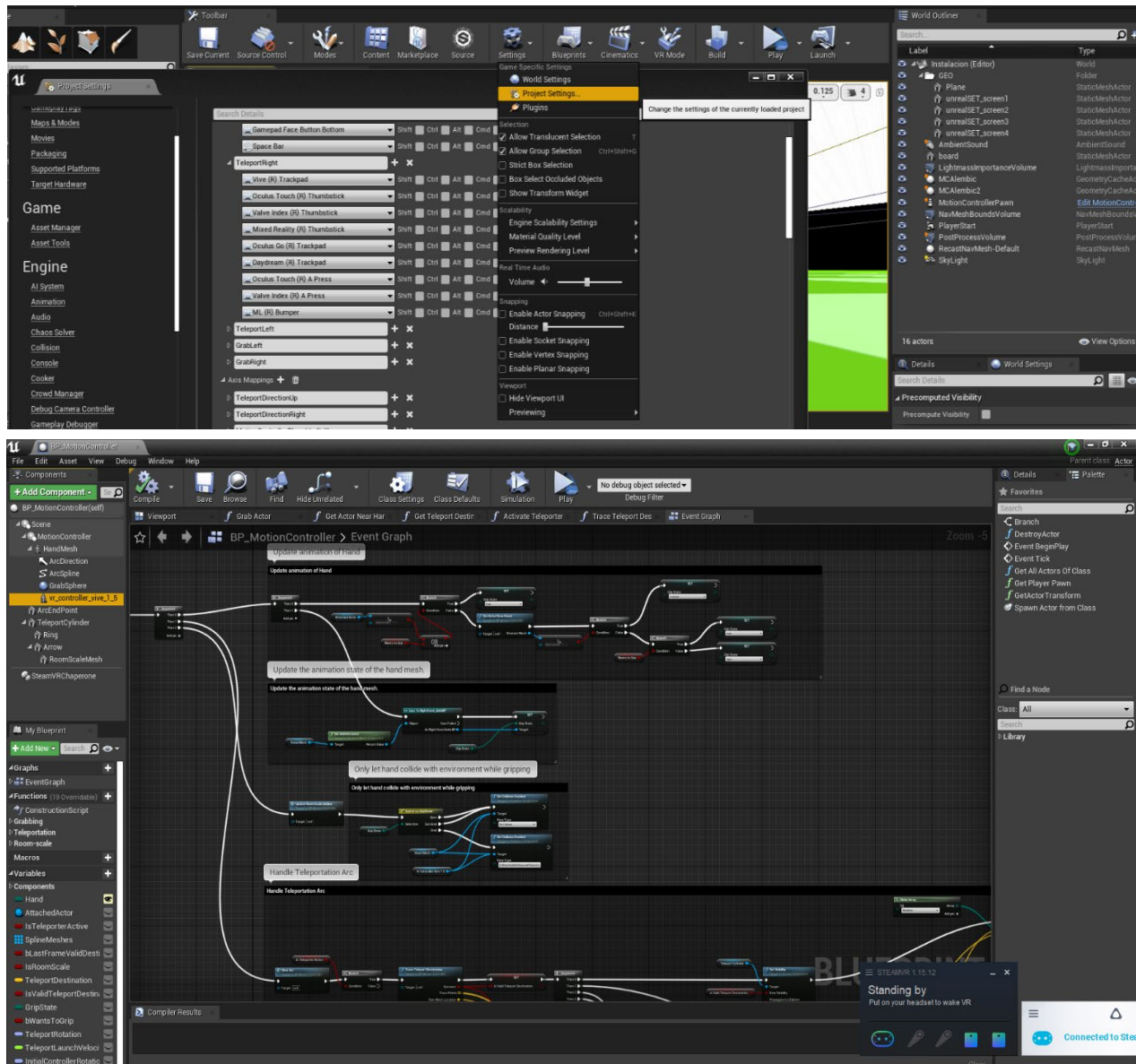


Figure 52: Screenshot of the node-network and the project settings tab with the control mapping protocols so the VIVE controllers would allow teleportation.

Source: Marcos Carrasco

Once all this is done the rest of my work was to arrange the meshes and connect several videos. I checked the VR environment and tested the interactivity by entering the VR world in Unreal Engine Editor by using the VR display.

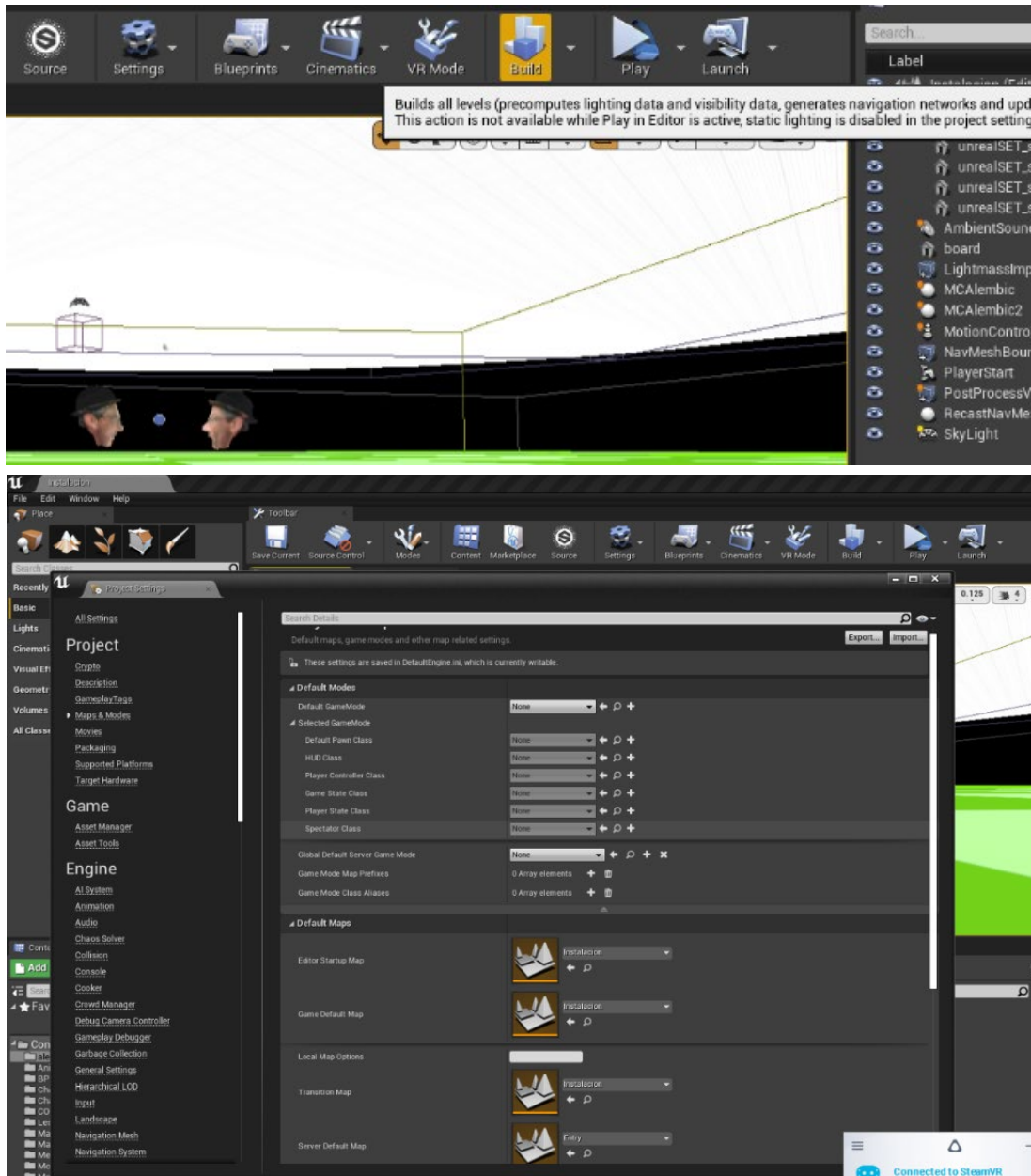


Figure 53: Screenshot showing the assets imported into the Unreal Engine, and the VR preview button.

Source: Marcos Carrasco

## Cooking an Executable VR file for Steam

The last step was packaging an executable. But before this, it was very important to build the lights and check all the settings and maps in the project settings tab in Unreal Engine.



*Figure 54: Image showing the protocol of building lights, and checking the proper world map before cooking the final VR executable.*

*Source: Marcos Carrasco*



Finally cooking content for windows, and the executable file was ready to deploy to VIVE or OCULUS. It was packed for WINDOWS (64-bit). My VR installation film *RUBICON: The Dialectic* works in both VR platforms VIVE and OCULUS, but the controllers are designed to display as VIVE controllers.

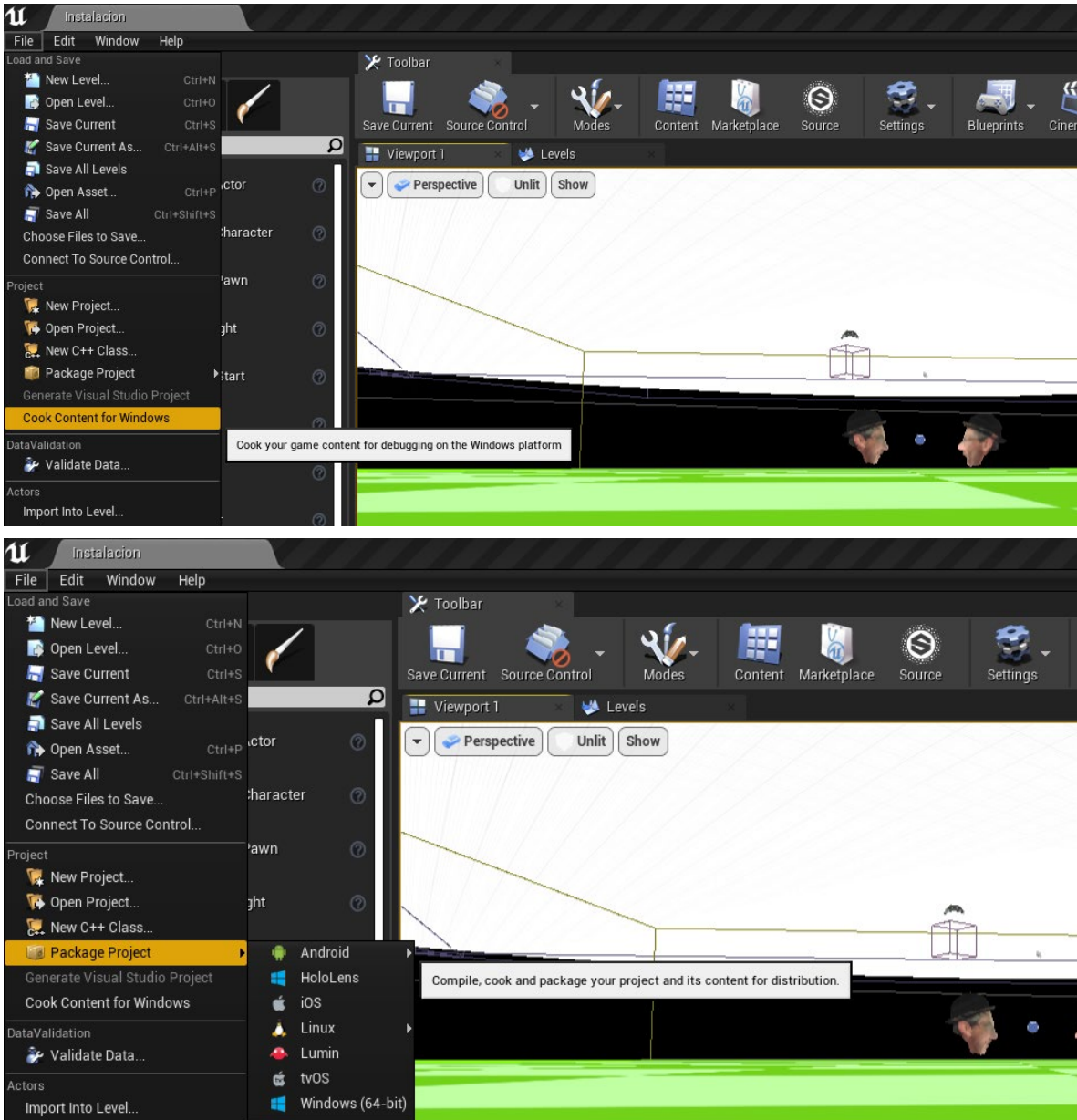


Figure 55: Screenshot showing the packaging of the content, and cooking an executable for Windows.

Source: Marcos Carrasco

### VR Gear, Exploration and Choices

There are many VR systems in the market. I tried the Oculus Rift and HTC VIVE and found that the VIVE was more robust and worked with Steam VR and did not depend on having a Facebook account. It appears to be built better than the Oculus, and the tracking provided by the two Base Stations were very accurate. Both brands provided excellent information on how to set the equipment, how to maintain the VR goggles and controllers, and how to deploy the executable in Steam VR. To learn more about it please check the HTC VIVE website and documentation, and also check the Stean VR website.



*Figure 56: Author's photo of the HTC VIVE COSMOS ELITE used in this thesis VR film.*

*Source: Marcos Carrasco*

Shots from inside RUBICON: The Dialectic



*Figure 57: VR capture shots from RUBICON: The Dialectic, showing the two 7ft 3D animated heads.*

*Source: Marcos Carrasco*





*Figure 58: Shots of the footage projected on the 70ft virtual screens .*

*Source: Marcos Carrasco*

## CONCLUSION

In these times of intense technological change and development, we are facing a new industrial revolution. Our lives are more immersed in “the internet of things”, and the rising of surveillance. Neoconservatism is expanding worldwide in social media, politics, and mainstream media. I believe that artists, animators, and filmmakers have a historical responsibility to defend justice, pluralism, and humanism. As Roberto Matta once said, “Art is the desire of what doesn’t exist and the way to make it a reality.” I believe in merging disciplines and searching for content that awakens and creates awareness by raising more questions than paradigms. In this new era of VR, remote work, virtual visits to museums, an emerging market for NFTs, intense content creation of movies, music, and social-media, the spirit of freedom of speech and creation should prevail. As Banksy once said, “Art should comfort the disturbed and disturb the comfortable.” I believe that all humans are artists, that art is the Esperanto to unite us as one. We will never be substituted by technology as long as we stay in touch with our inner child, with our ability to love, dream, express, explore and make mistakes. This is why I made *RUBICON: The Dialectic*. We artists, and especially us who teach in any artistic discipline have the responsibility to open the minds of the students. We artists, and especially the ones that create content, have the responsibility to free our spectators from what José Saramago calls “mental colonization”. As artists, art educators, and content creators that use emerging media and technology we have the responsibility to share this knowledge, to develop tools, and content that will help the ones in need, and free the oppressed just as Prometheus once did when he brought the fire of the gods to all humanity. I plan to continue my artistic journey, making more films and installations. I also would like to teach future generations about the use of mixed media and VR, to expand the boundaries of animation and visual arts.

## GLOSSARY

**Cooking Content.** The process of formatting content from Unreal Engine to another platform.

**Light Linking.** Linking a light exclusively to illuminate an object or a group of objects in Autodesk MAYA.

**Quadrangles.** A polygon that has four sides in a geometrical mesh.

**Teleportation.** An interactive device that allows a participant to move inside the VR environment by pressing a button on the controller without having to physically move in the real world.

**Triangulation.** The process to convert polygons to triangles in Autodesk MAYA.

**UV mapping.** The process of projecting a 2D texture over a 3D object in Autodesk MAYA.

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