



INTERREALITY



# WORK CULTURE

## TIMELINE OF WORK

A hunter-gatherer is a human living in a society in which most or all food is obtained by foraging (collecting wild plants and pursuing wild animals), in contrast to agricultural societies, which rely mainly on domesticated species. Hunting and gathering was humanity's first and most successful adaptation, occupying at least 90 percent of human history. groups in most parts of the world.

The change comes a mere 12,000 years ago, when people first discover how to cultivate crops and to domesticate animals. This is the most significant single development in human history. It happens within the Stone Age, for tools are still flint rather than metal, but it is the dividing line which separates the old Stone Age (palaeolithic) from the new Stone Age (neolithic). It has been aptly called the **NEOLITHIC REVOLUTION**.

The move to sustained agriculture also led to the second big shift in humanity's understanding of work – craftsmanship. Because food could be reliably grown by a subset of society, agriculture fostered specialization. Those that could make garments or erect buildings or fashion tools best ended up doing so, resulting in different trades and better products. That specialization brought as the very concept of trade that we know today and eventually led to the concept of currency or money to facilitate transactions. It led to apprenticeships and training and, to some degree, education, which in turn facilitated the idea of higher learning.

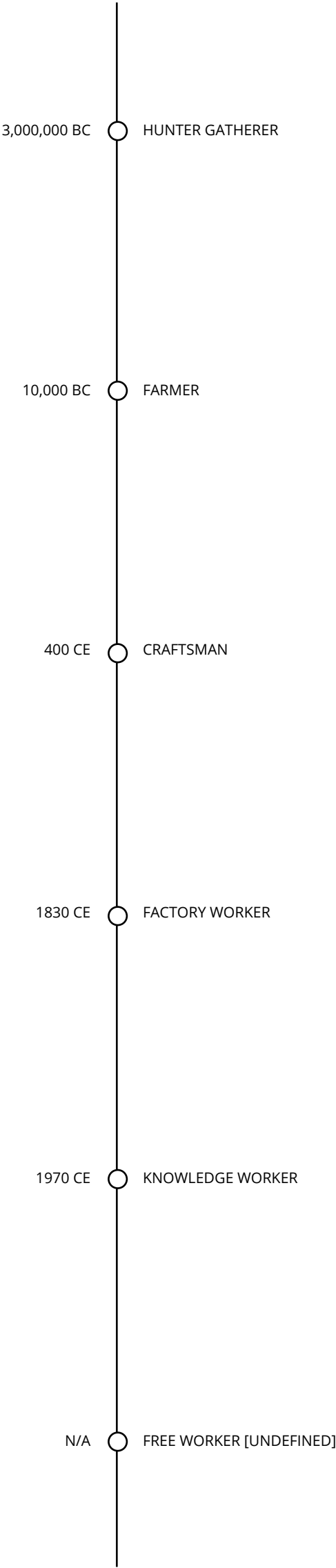
Despite technological advances, exploration, the growth of city-states and nations, the evolution of democracy and politics, and the creation of highly specialized professions like medicine, law, and accounting, humanity's next real leap in terms of work and its place or impact on our lives was thousands of years in coming and it was the **INDUSTRIAL REVOLUTION**.

It was a force that transformed virtually every aspect of the agrarian life that humans had led for all of recorded history. It turned farmers into factory workers. It made travel and communication faster than anyone had ever imagined possible. It engendered the creation of mega-cities like New York. It revolutionized trade and lay the first real seeds for globalization.

The **INFORMATION AGE**, defined by the rise of the knowledge worker and modern office, was the next major change in work for a large swath of mankind. Nine to five became the norm, the American dream of a house in the suburbs became accessible to millions, and things that had been luxuries like an automobile or television were within reach of a growing middle class. Education, particularly higher education, became more important and more common. The Information Age placed work into a comfortable box for most people, divorced from their personal life, and changed work from being solely about providing the basic needs to providing a better quality of life.

Even the introduction of the PC, enterprise computing, and the Internet didn't fundamentally change the notion of work or the office. They automated transactions, improved efficiency, eliminated redundant positions, and improved workplace and business to customer communications, but didn't change the notion of work or how business was conducted in a fundamental way.

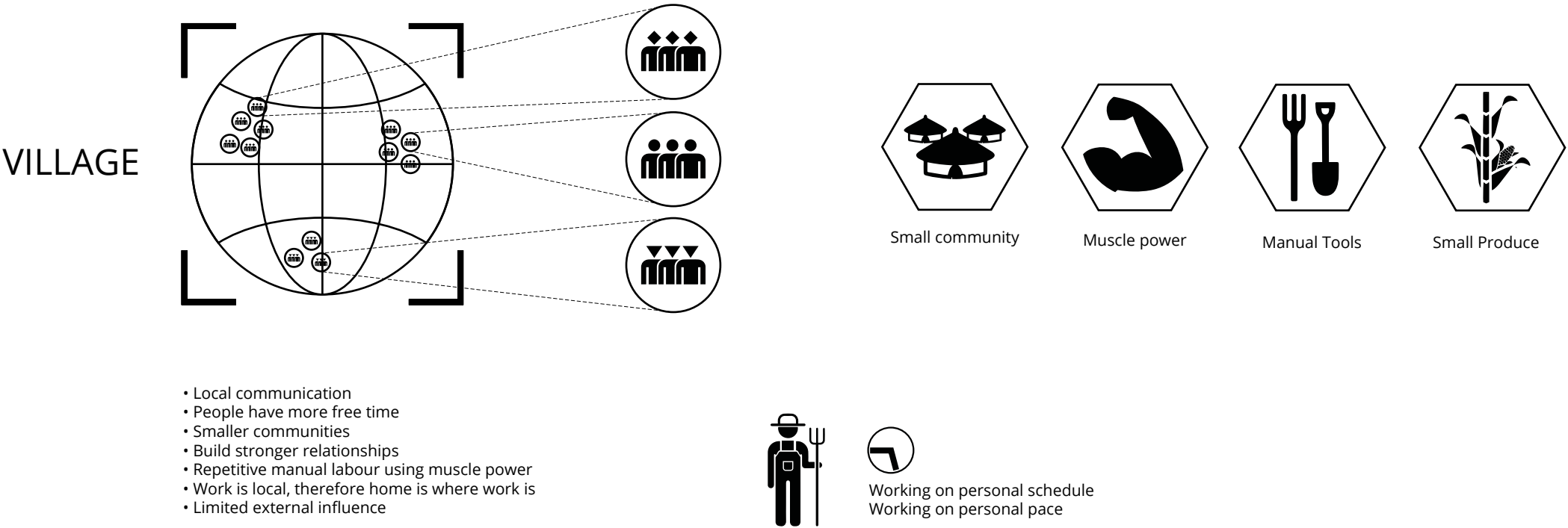
Today's era, which many have dubbed the **MOBILE-FIRST ERA**, is still just beginning to emerge, but it has already begun to be obvious that it will be equally transformative to work, its place in people's lives, and to the overall meaning of their lives as the transitions of the past. For many, it already has been. Mobile has already blurred and will eventually destroy the boundaries between work and personal life that the Industrial Revolution and Information Age built. As many already know, it is now possible to work anywhere at any hour in many professions. As much as they work from home or Starbucks or a doctor's waiting room or any place else, they also do more personal tasks during traditional work hours in the office. The old notion of the work/life balance has given way to a continuum of work/life blending and context switching that encompasses waking hours. Employers, including state and federal agencies, are beginning to encourage people to work from home. It improves morale and reduces the need for large workspaces since workers come into the office only when there's a real need, saving a good deal of money in the process. These early shifts led to the co-working movement; to services like Liquid Space that let you easily find and rent an office, cube, or desk wherever you are for as long as you need it; and it's led to companies creating completely flexible workspaces where you can sit at any desk you like or use alternative spaces like lounges, quiet rooms, and conference spaces as needed.





# WORK CULTURE

SIGNIFICANT TRANSITIONS | WAVE 1



## Industrial Revolution

19 Century

### HIGH SKILLED CRAFT JOBS

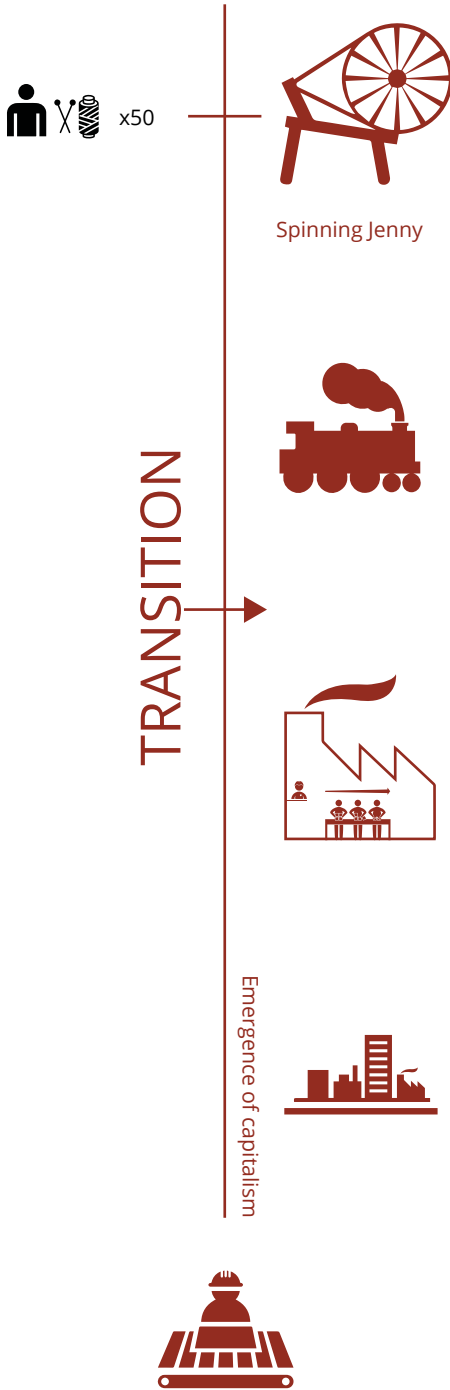
### LOW SKILLED LABOUR JOBS



Manual Labour Jobs



Manual Agricultural Jobs

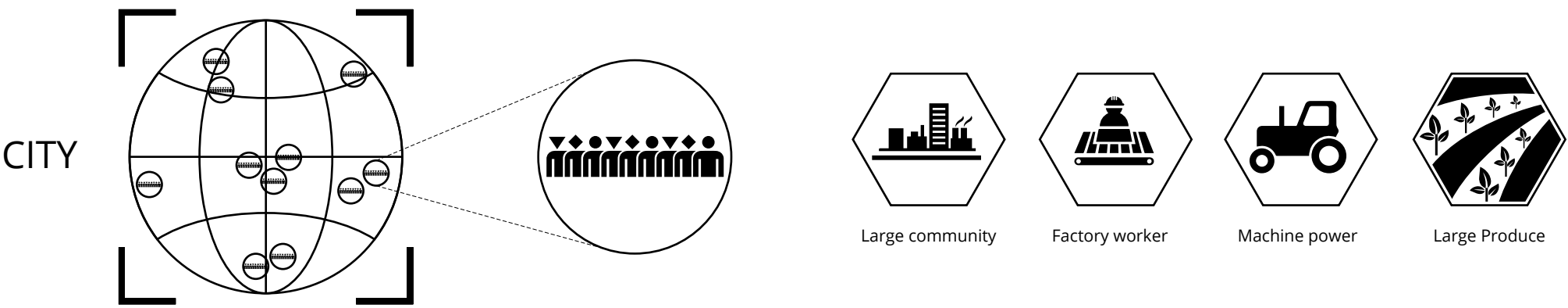


Spinning Jenny



# WORK CULTURE

SIGNIFICANT TRANSITIONS | WAVE 2



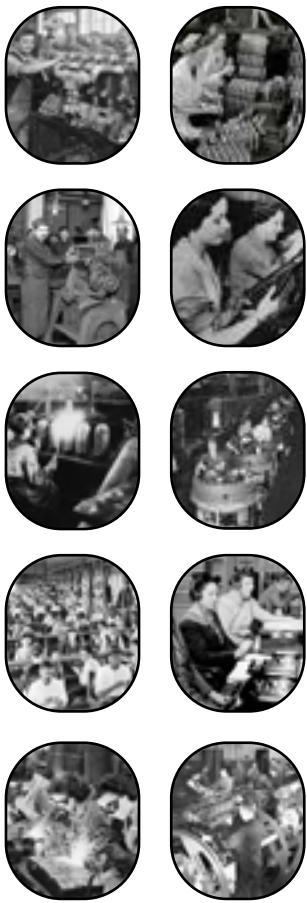
- Communication within large urban cities
- People have less free time
- Larger communities
- Repetitive manual labour using machine power
- Work is local, therefore home is where work is
- Higher external influence
- Big ethnic diversity



Information Age

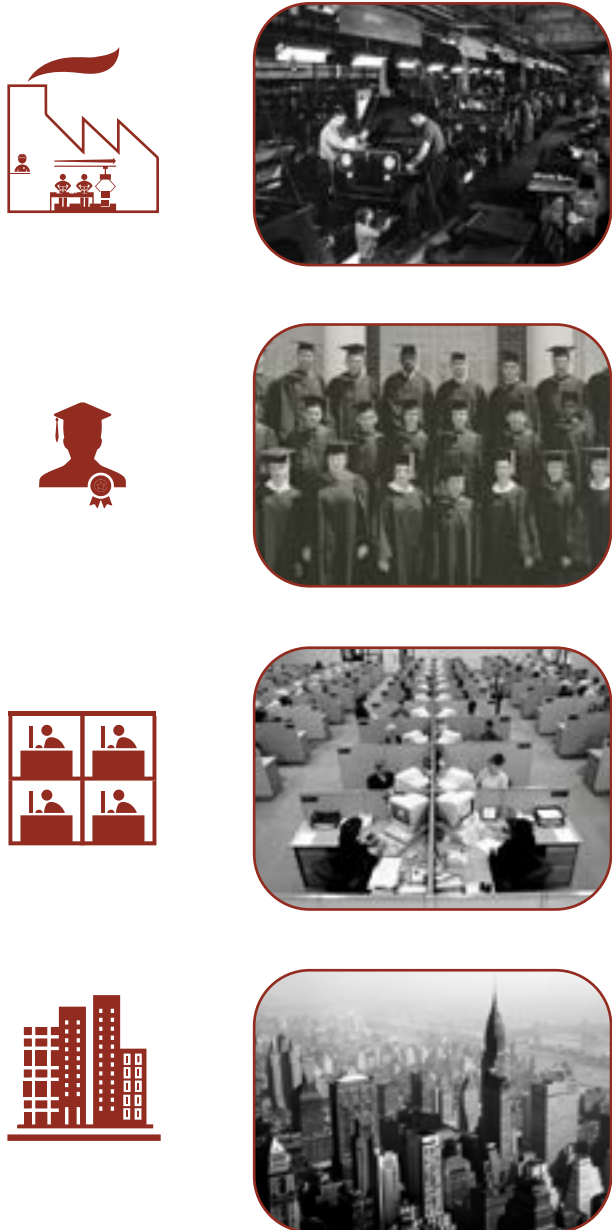
1945

LOW SKILLED LABOUR JOBS



Manual Agricultural Jobs

MID | HIGH SKILLED JOBS | REPETITIVE NON CREATIVE

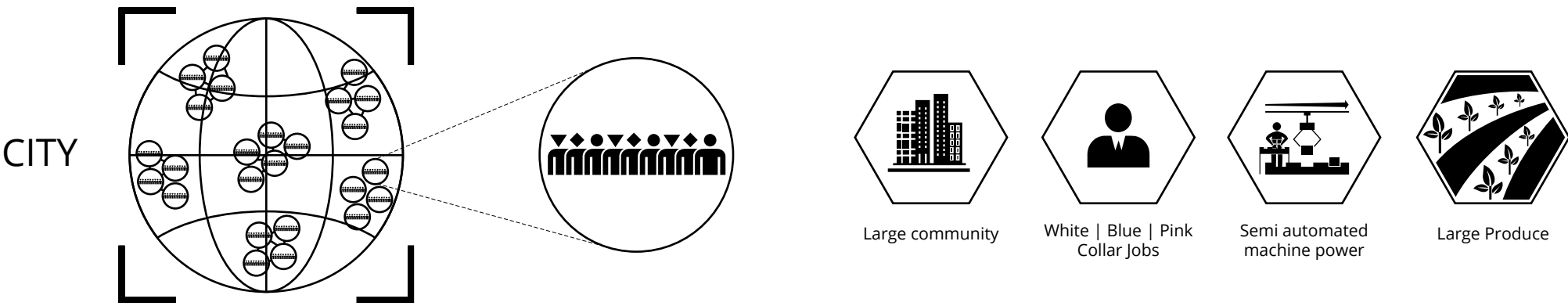


TRANSITION





WORK CULTURE  
SIGNIFICANT TRANSITIONS | WAVE 3



- Communication within large urban cities
- People have less free time
- Larger communities
- Higher skilled jobs required.
- White, Blue and Pink collar jobs term created
- Work is local, therefore home is where work is
- Higher external influence
- Big ethnic diversity



Digital Age  
1970s

MID | HIGH SKILLED JOBS | NON CREATIVE

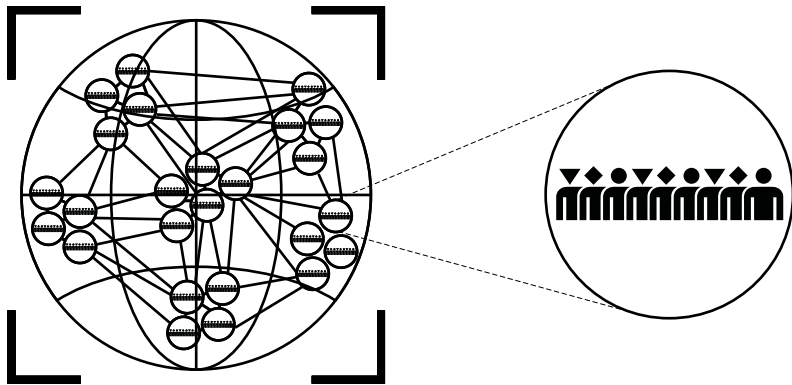
HIGH SKILLED JOBS | SEMI CREATIVE





WORK CULTURE  
SIGNIFICANT TRANSITIONS | WAVE 4

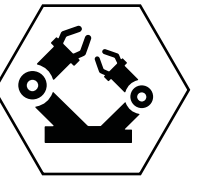
TRULLY GLOBAL SOCIETY



Global community



Creative work



Machine automation



Large Produce

- Commuication within large urban cities
- People have unlimited free time
- Global communities
- Creative jobs
- Work is voluntary
- Work can be done remotely. Home can be anywhere
- Global influence
- Global ethnic diversity



Working on personal schedule  
Working on personal pace

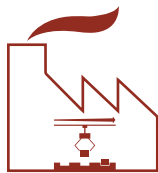
Full Automation Age



2030s

JOBES THAT CAN BE AUTOMATED

COMPLEX | UNSTRUCTURED | PROBLEM SOLVING JOBS



TRANSITION

?

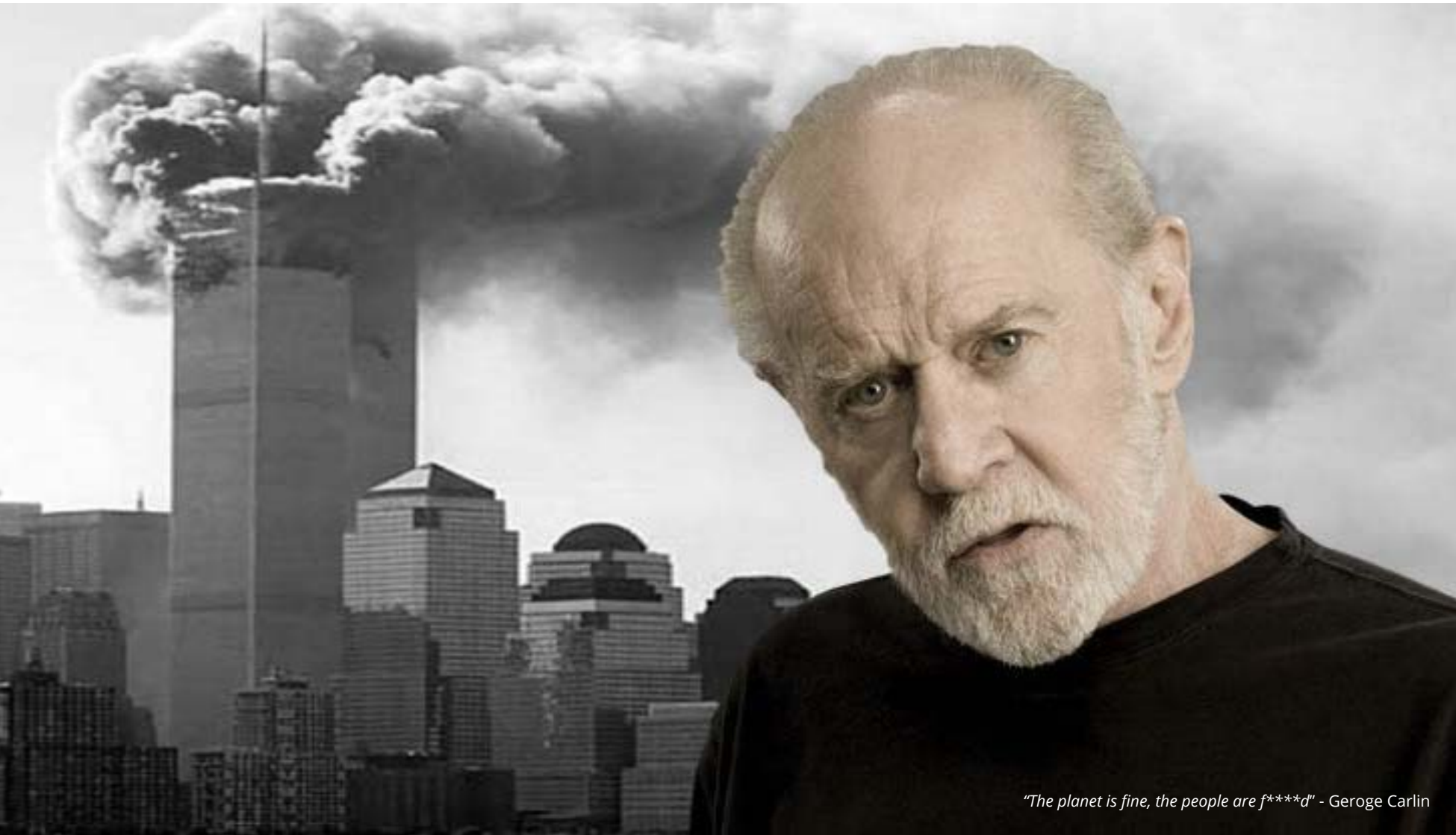


# THE 21st CENTURY

“THE REASON WHY WE ARE IN SUCH A MESS..”

“...is **NOT** simply that we have wrong systems for doing things, whether they be technological, political or religious, but we have the wrong people.”

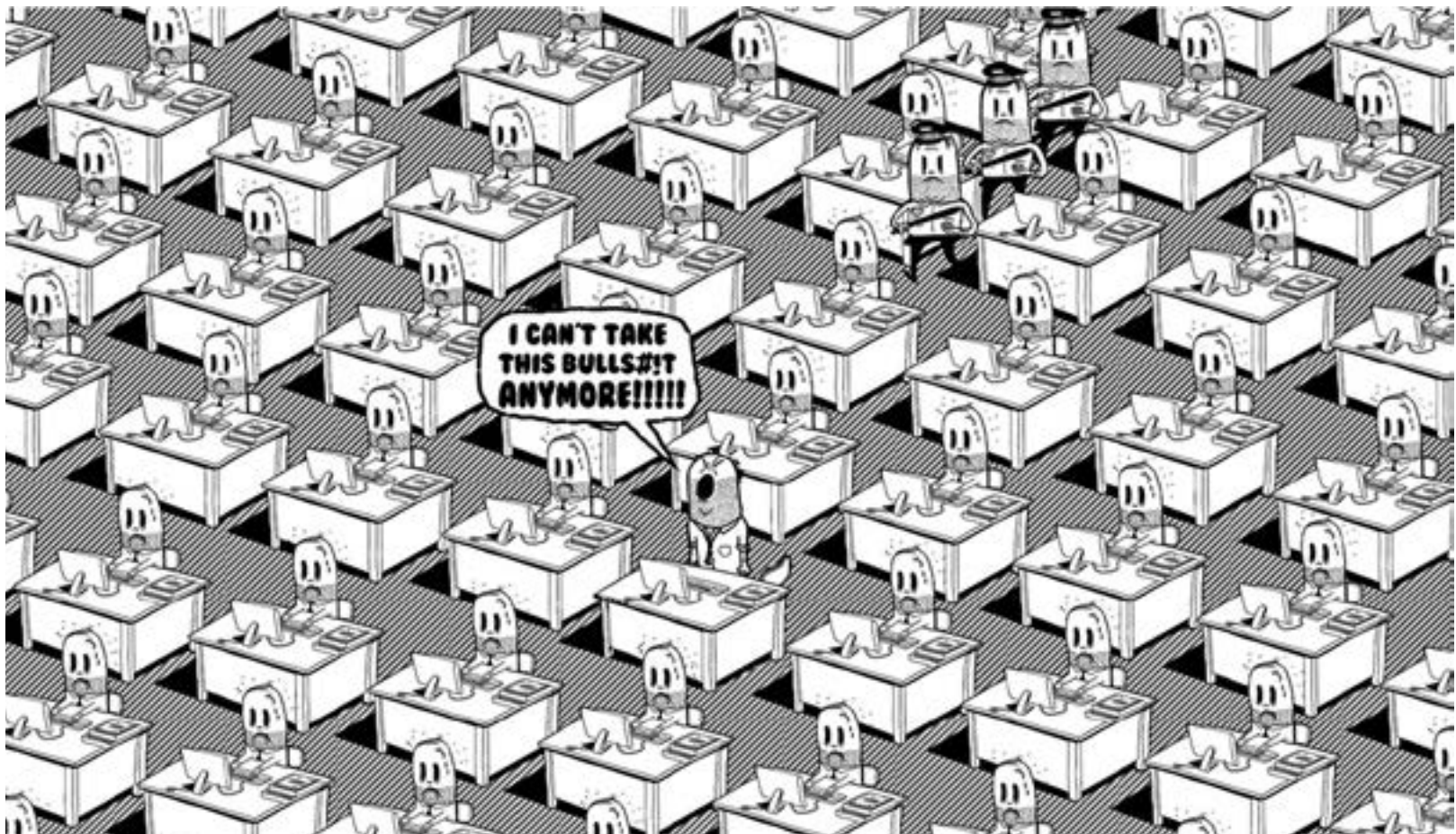
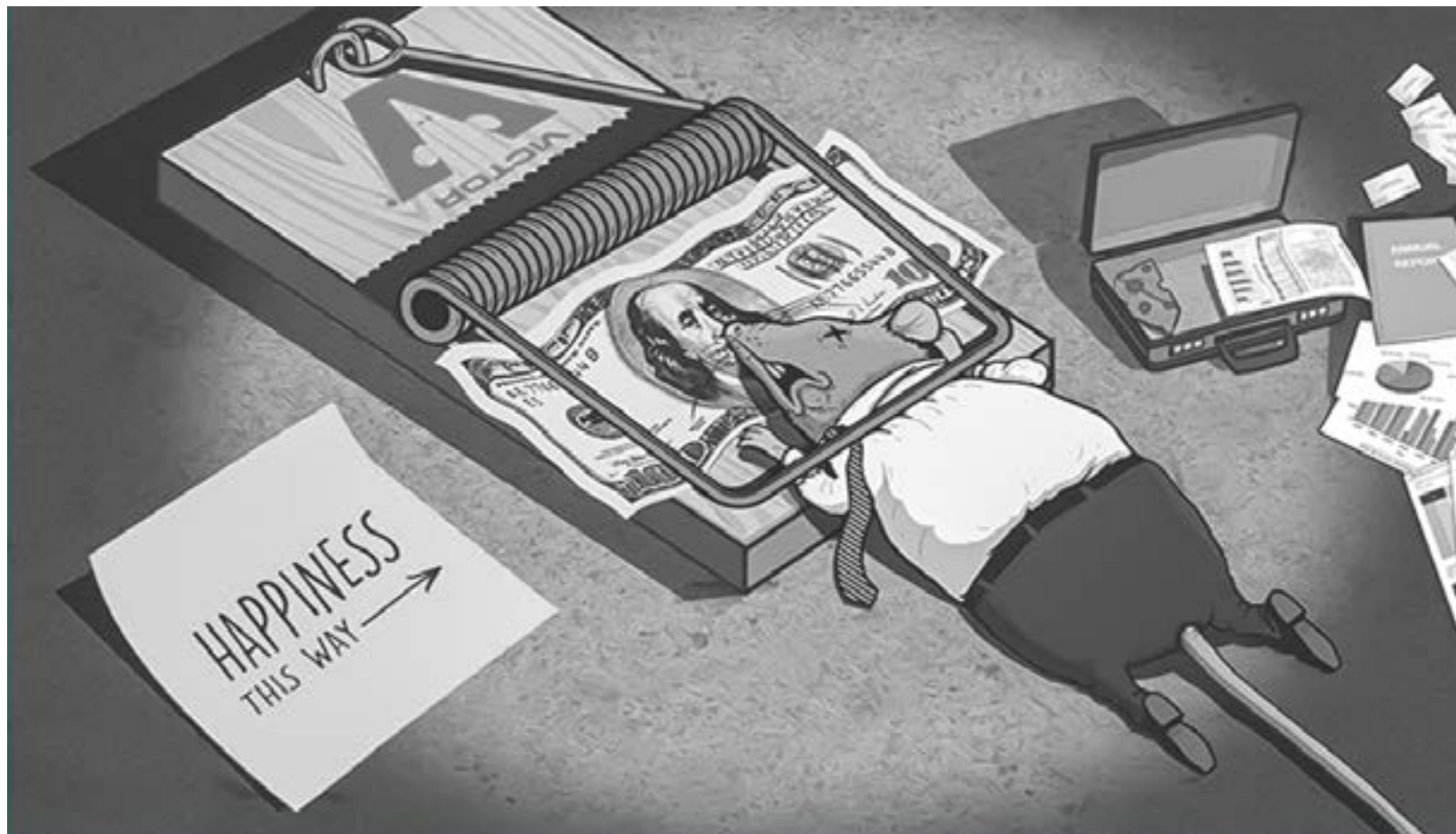
- Alan Watts



Though we consider humanity to be far more civilised and technologically advanced than it used to be many centuries ago, we are still not able to solve our problems and differences in a “civilised” way. By identifying some of these issues in the world, we sometimes tend to look for the solutions in the political systems and the people in power who govern the global economy. Though that is partially responsible, we should not forget that all the power truly lies within the main population. It is therefore much more worthy to find ways to change the people, ourselves, instead of the political systems in which we live in.



WORK CULTURE  
ILLUSTRATIONS AND ASSOCIATIONS



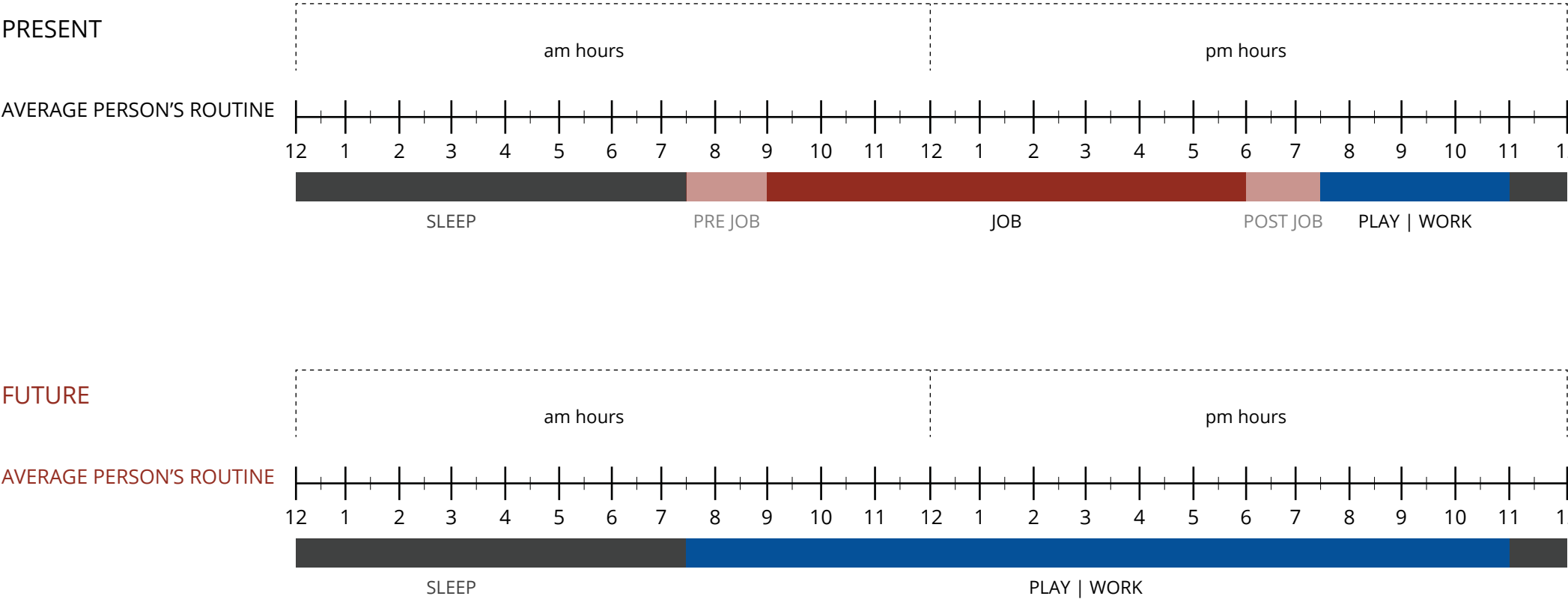
Illustrations by Steve Cutts

The world is ran like a factory. People are enslaved by work and don't have time to develop their true potential.. The biggest problems in the world are a result of a corrupt civilization that is conditioned to work and fuel an unsustainable civilization.



# JOB WORK / PLAY WORK

THE EXTINCTION OF JOBS



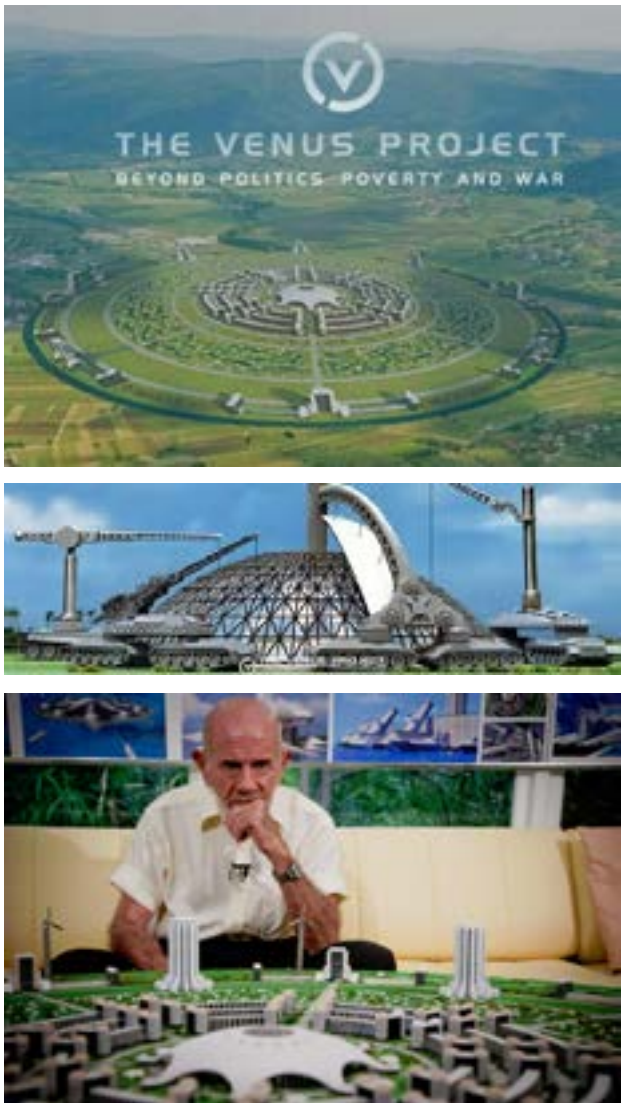
In a fully automated economy, human work will become redundant, as all production will be produced by robots and other machines. Humans will be able to use all their time as they like. A Universal Basic Income will be sufficient to provide a very high quality lifestyle.



# POST CAPITALISM SPECULATIVE RESEARCH

## EXAMPLES OF ALTERNATIVE ECONOMIC SYSTEMS FROM SCHOLARLY LITERATURE

**“The Venus Project”**  
Jacque Fresco and Roxanne Meadows



The Venus Project is an organization that proposes a feasible plan of action for social change, one that works towards a peaceful and sustainable global civilization. It outlines an alternative to strive toward where human rights are no longer paper proclamations but a way of life.

It is a veritable blueprint for the genesis of a new world civilization, one that is based on human concern and environmental reclamation. One fundamental premise is that we work towards having all of the Earth's resources as the common heritage of all the world's people. Anything less will simply result in a continuation of the same catalogue of problems inherent in the present system.

Human behaviour can be directed, either toward constructive or destructive activity. This is what The Venus Project is all about – directing our technology and resources toward the positive, for the maximum benefit of people and planet, and seeking out new ways of thinking and living that emphasize and celebrate the vast potential of the human spirit. We have the tools at hand to design and build a future that is worthy of the human potential.

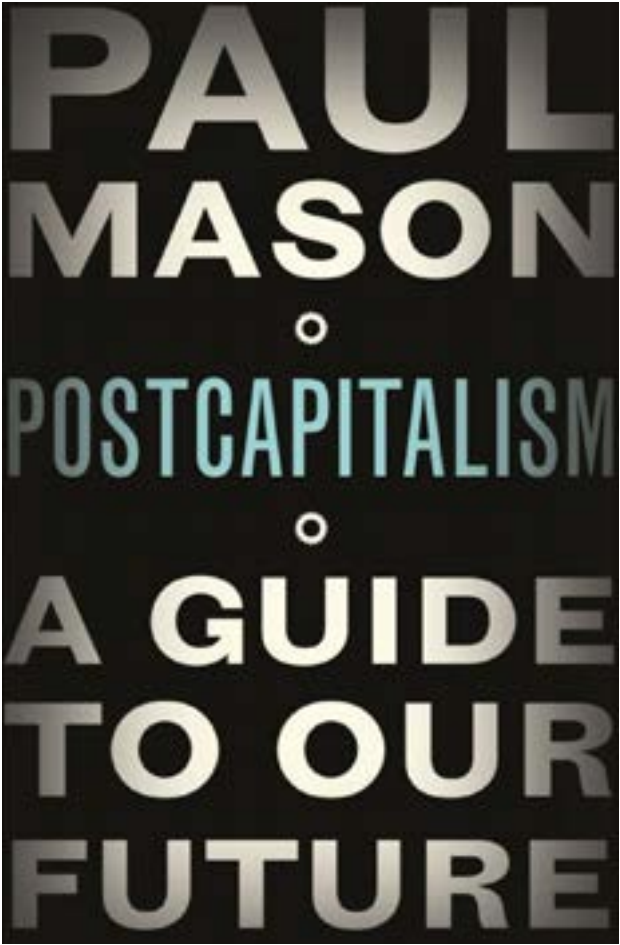
**“Inventing the Future: Postcapitalism and a World Without Work”**  
by Nick Srnicek and Alex Williams



A major new manifesto for the end of capitalism  
Neoliberalism isn't working. Austerity is forcing millions into poverty and many more into precarious work, while the left remains trapped in stagnant political practices that offer no respite.

Inventing the Future is a bold new manifesto for life after capitalism. Against the confused understanding of our high-tech world by both the right and the left, this book claims that the emancipatory and future-oriented possibilities of our society can be reclaimed. Instead of running from a complex future, Nick Srnicek and Alex Williams demand a postcapitalist economy capable of advancing standards, liberating humanity from work and developing technologies that expand our freedoms.

**“PostCapitalism: A Guide to our Future”**  
by Paul Mason



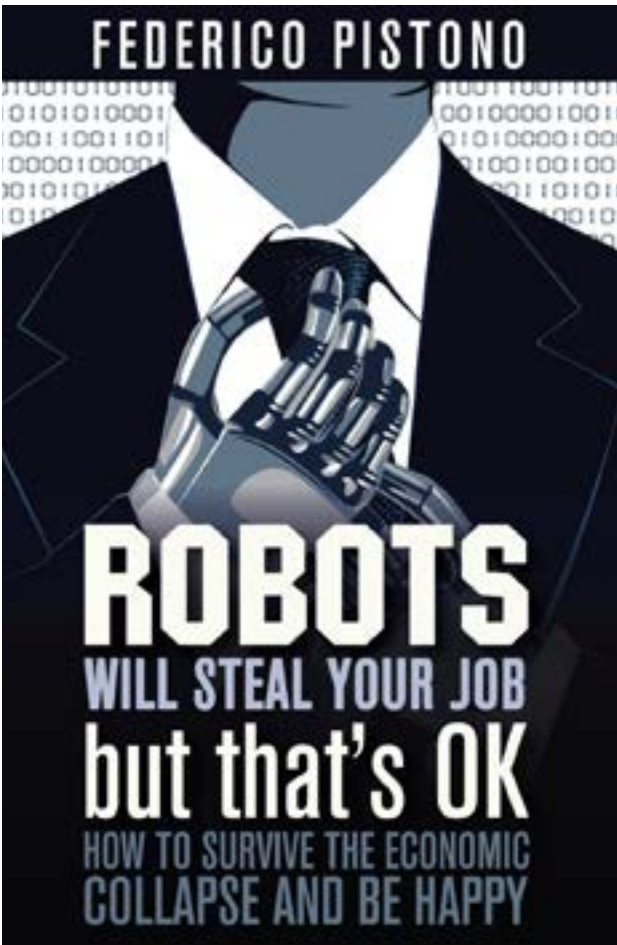
In the book, Mason discusses the existential threat posed to capitalism by the digital revolution. He argues that the digital revolution has the potential to reshape utterly our familiar notions of work, production and value; and to destroy an economy based on markets and private ownership. In fact, he contends, this is already happening. He points to parallel currencies, co-operatives, self-managed online spaces, even Wikipedia as examples of what the postcapitalist future might look like. Mason argues that from the ashes of the global financial crisis, we have the chance to create a more socially just and sustainable global economy.

**“The Refusal of Work: The Theory and Practice of Resistance to Work”**  
by David Frayne



David Frayne questions the central place of work in mainstream political visions of the future, laying bare the ways in which economic demands colonise our lives and priorities. Drawing on his original research into the lives of people who are actively resisting nine-to-five employment, Frayne asks what motivates these people to disconnect from work, whether or not their resistance is futile, and whether they might have the capacity to inspire an alternative form of development, based on a reduction and social redistribution of work.

**“Robots Will Steal Your Job, But That's OK: how to survive the economic collapse and be happy”**  
by Federico Pistono



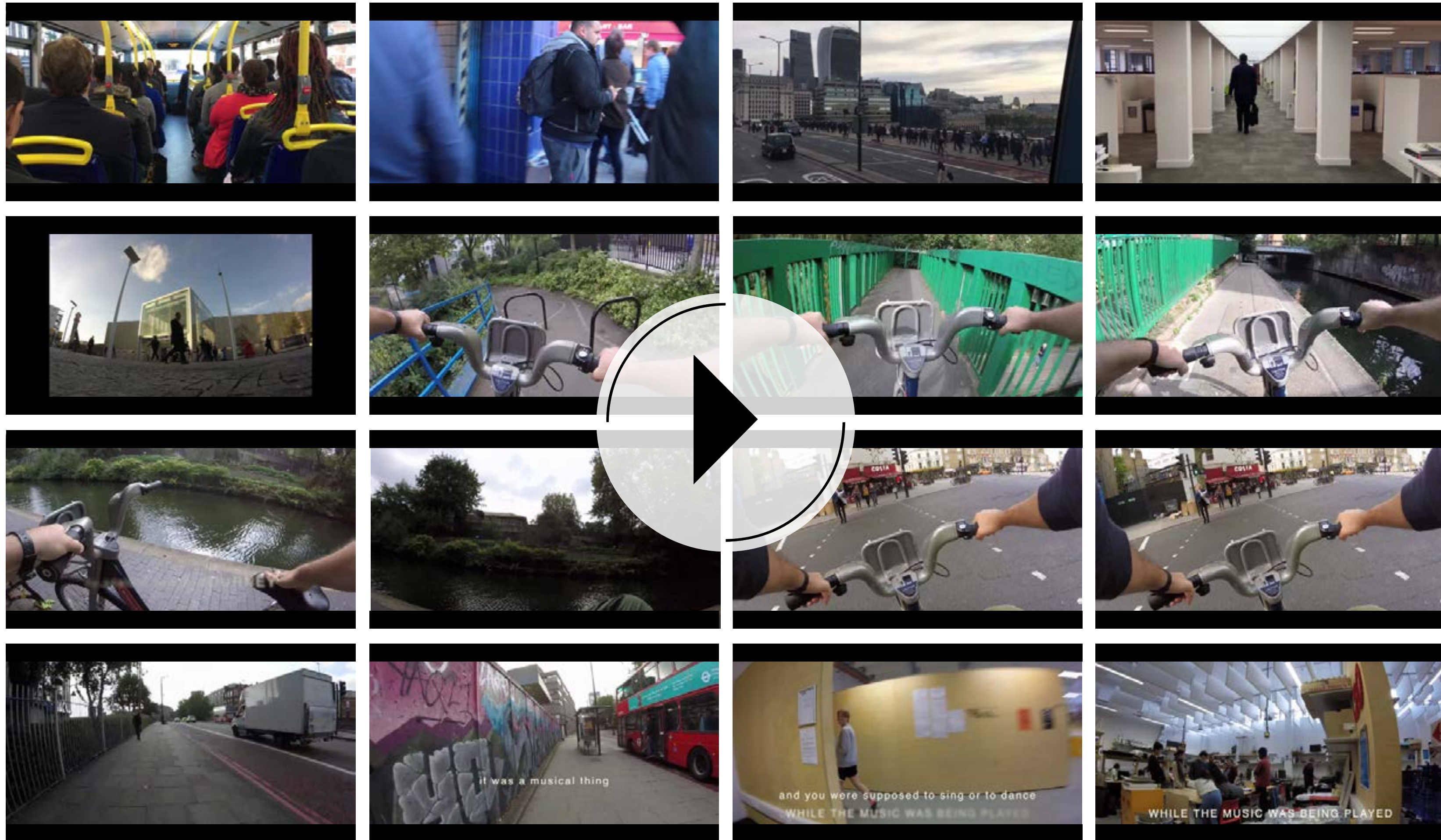
Robots Will Steal Your Job, But That's OK: How to Survive the Economic Collapse and Be Happy explores the impact of technological advances on our lives, what it means to be happy, and provides suggestions on how to avoid a systemic collapse.



# FILMIC INVESTIGATION

## "THE PLAY"

### PLAY FILM

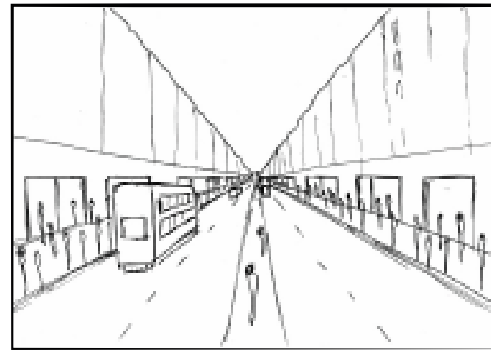


This film was an exercise to explore film techniques as well as the idea of how life is a form of play. It portrays the busy life of London and how people are rushing to get to work on a daily basis. In contrast to that, the protagonist takes a more enjoyable route to get to his place of work, riding his bicycle and passing through canals, parks and having breaks on the way. Though this was only a 30 second film, it attempts to emphasise our approach and attitude on the things we do rather than the thing itself. The film is overlaid with a narration by Alan Watts.

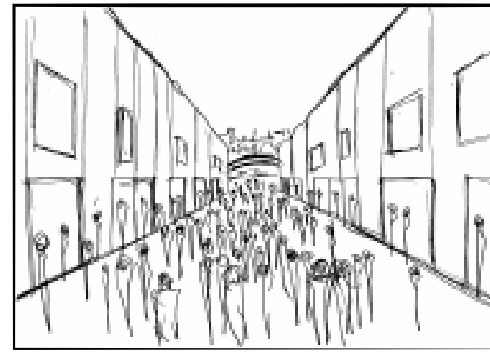


# STORYBOARD

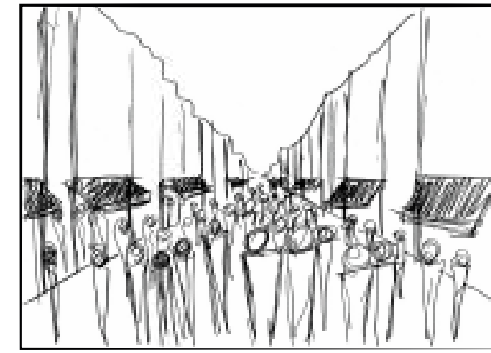
"HOW CAN ONE EXPERIENNC"



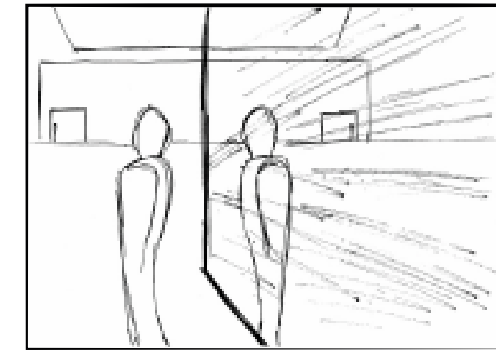
INTRO SCENE: In the opening scene the viewer is presented with a sequence of long perspective shots where we are between large masses of people walking along different commercial streets.



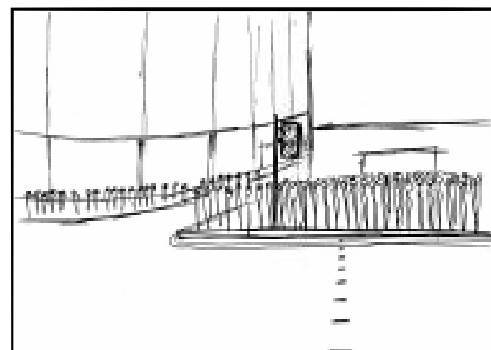
The majority of people are doing this for leisure. We are caught up in a stream of slow paced civilians wandering up and down the street and in and out of shops.



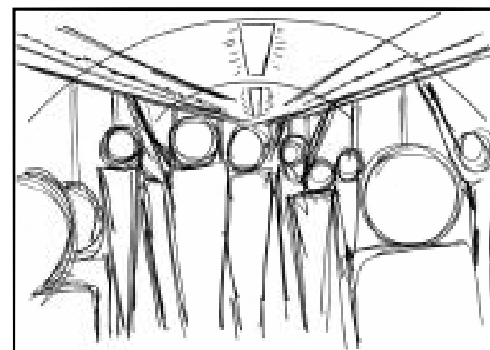
The mass of people is even greater in this shot and the walking pace even slower. It seems like we are group of hypnotised people. We are free to move up and down and in and out of shops, but we are unconsciously limited to this street.



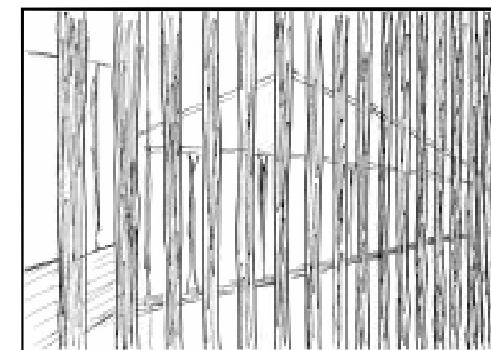
A man stares into a shop-front. His reflection on the glass symbolizes his ego or self.



Hundreds of people waiting for the green light to cross the street. This sign is shown as a symbol of conditioning.



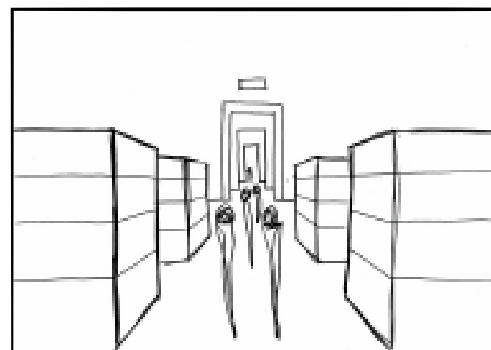
We are again caught in another cramped space where there is no light, no fresh air and no space to sit down. It reminds us of a prison. We are completely lacking any freedom in this situation.



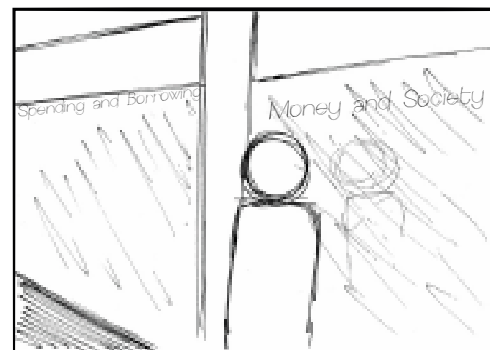
Heading towards the British Museum, the bars are a symbol of prison bars, as we have mentioned in the previous scene that we are not free.



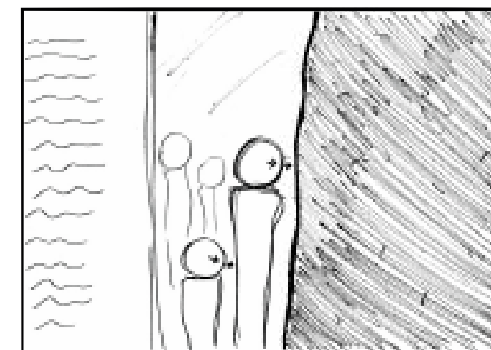
A sequence of scenes indicate historical artefacts. People are walking around and looking at pieces of history.



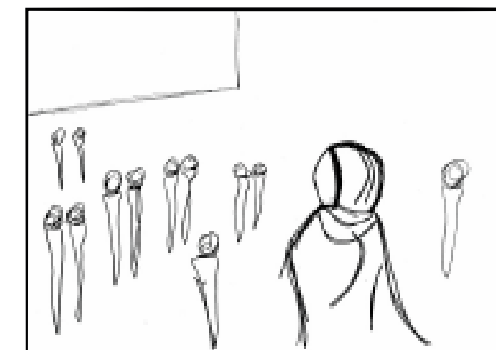
We are moving on, going from one space to the next. The long perspective is picking up on the intro scenes' motif and indicates the same hypnotised pace where we walk along a defined route. It indicated that we are back on route, the route of the 'present' where we walk as if in a state of trance.



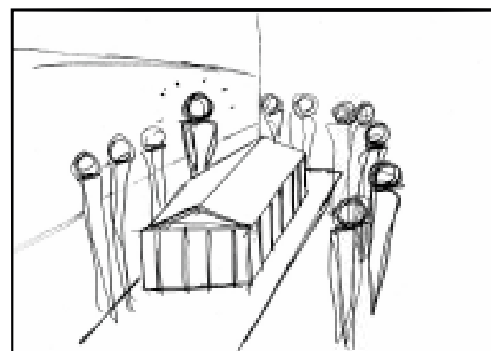
We are in the section where the objects displayed are from recent and present years. This space is lit differently and has a more futuristic atmosphere. This shot is indicating a hint that the future is concerned mostly with money.



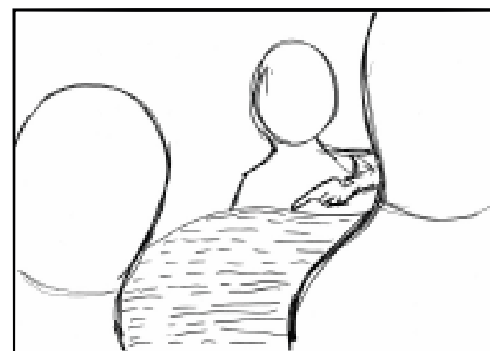
A young child and an adult are standing next to each other looking at an ancient object. The object represents the past, the adult represents the present and the child represents the future.



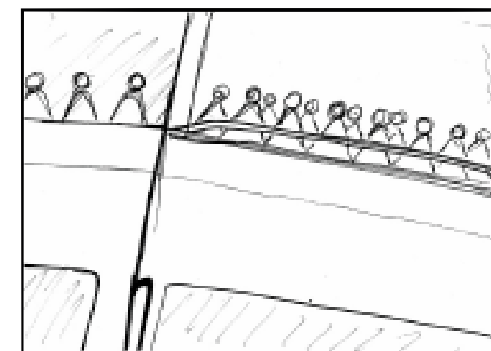
In this shot we can see a black woman who is Muslim (indicated by her clothing style). It is an example of how "all time is contained" in one person. A person who geographically has origins somewhere in Africa, and at some point that country adopted Islam, that originated in Mecca. And at this point in time this person is located in Europe.



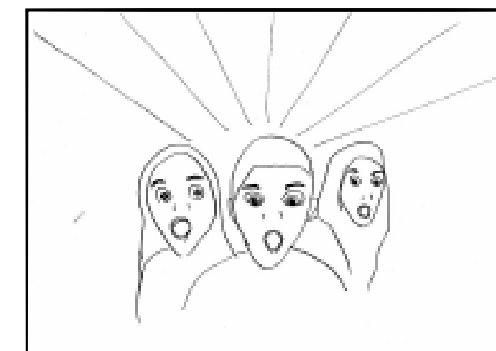
We are in between a group of visitors, where a guide giving us information, in the form of facts, about events that took place over 2000 years ago.



Another guide is again giving out information on the Rosetta stone to another group of people. This shot is to indicate how we are being instructed on what is important and relative to us.



A group of tourists are on an open double-decker bus. This scene shows how people or tourists in this occasion are again in groups and are being lead to another destination. The previous scenes hint that they will be exposed to similar circumstances.

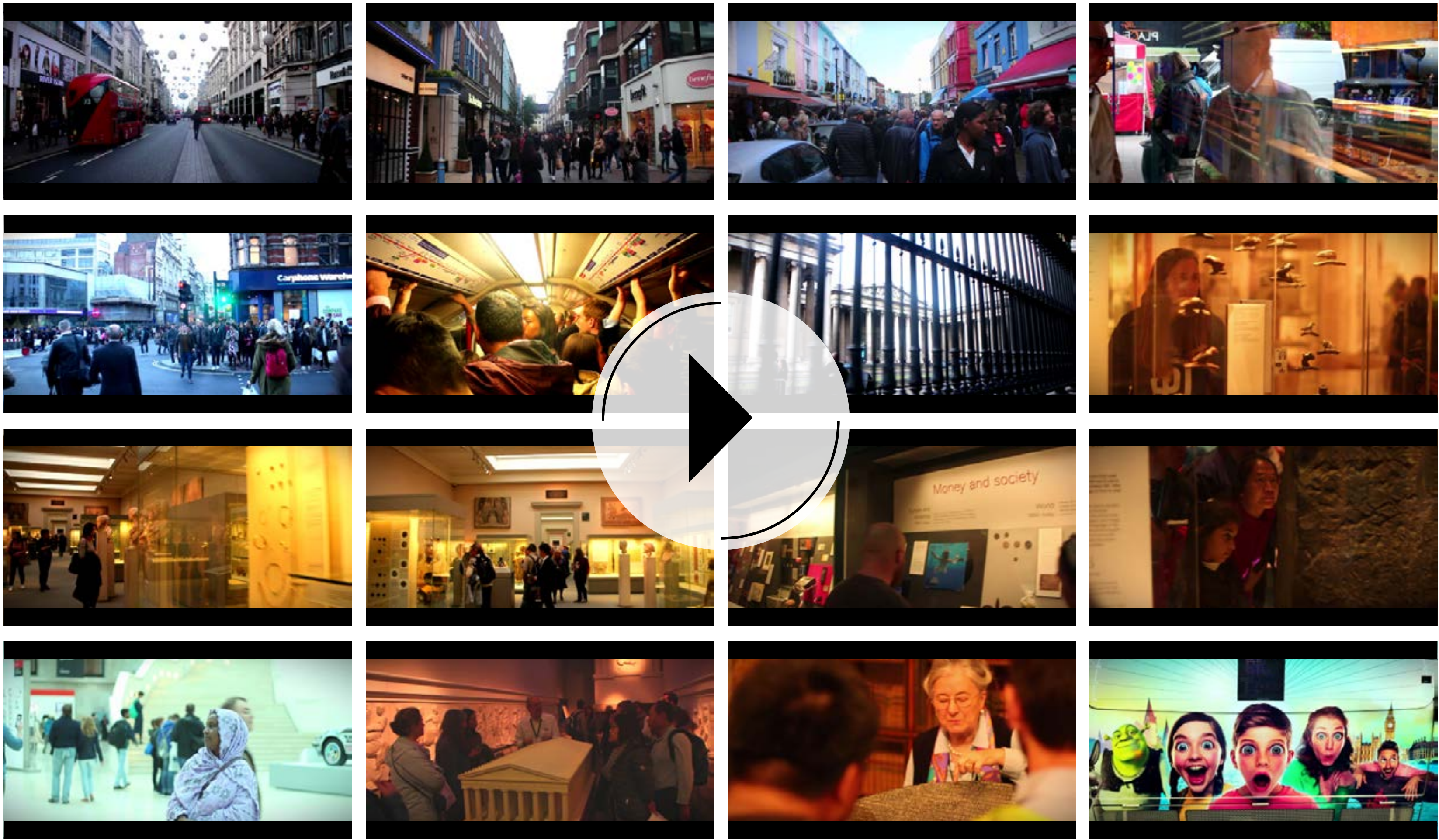


The surprised and shocked expression shows that something has been revealed. We are beginning to question ourselves and we can see what we couldn't see before.



FILMIC INVESTIGATION  
"HOW CAN ONE EXPERIENNCE"

PLAY FILM

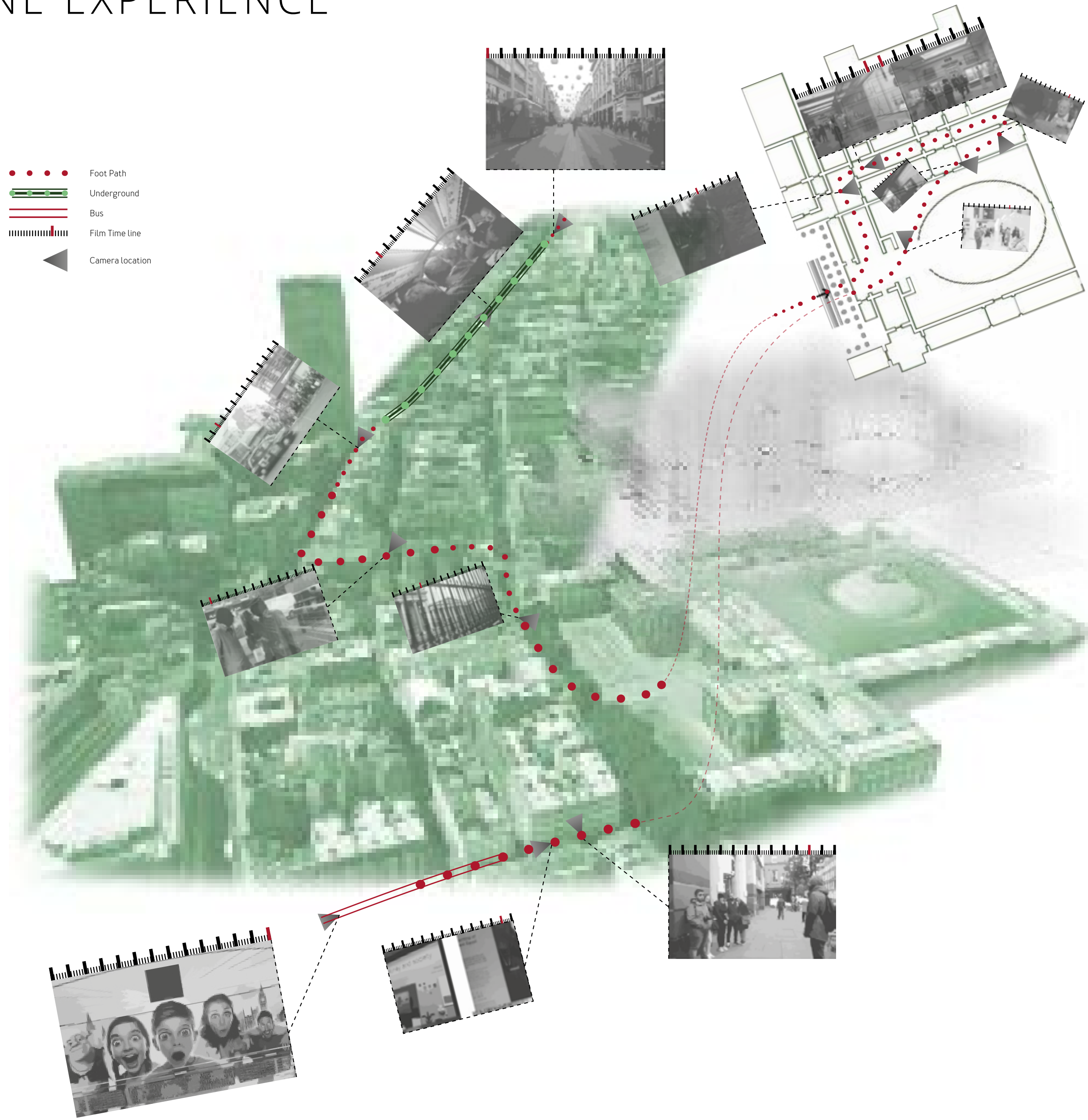


This film is a first person view of a on observation of a series of spaces. I chose to show a route from oxford circus to the British museum. The narrative of the film attempts to show that we are all conditioned is certain ways without realising it. By closely observing ourselves and our surroundings we can start being aware of it.  
[Narration by Jiddu Krishnamurti]



# "HOW CAN ONE EXPERIENCE"

4D DRAWING





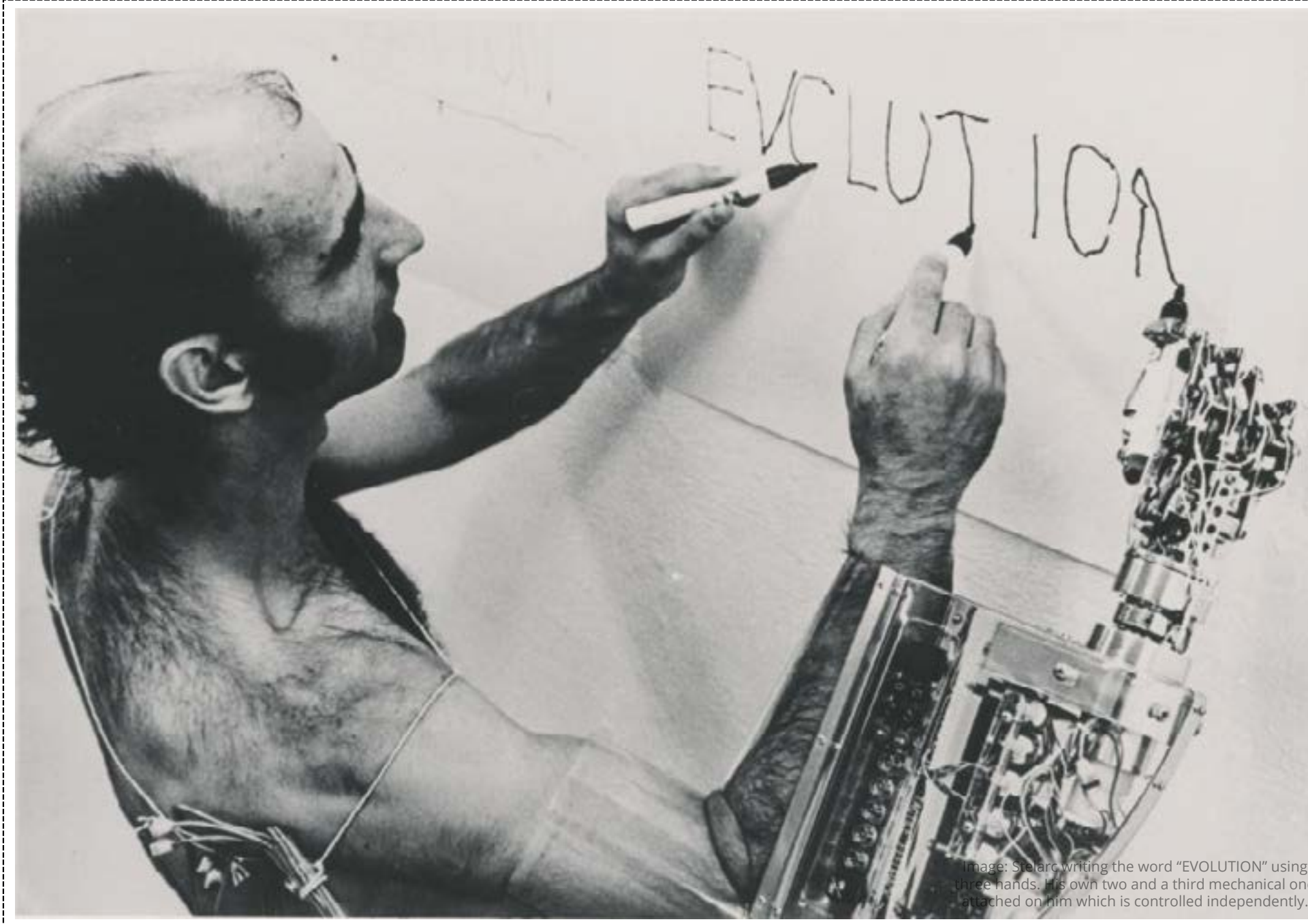


Image: Stelarc writing the word "EVOLUTION" using three hands, his own two and a third mechanical one attached on him which is controlled independently.

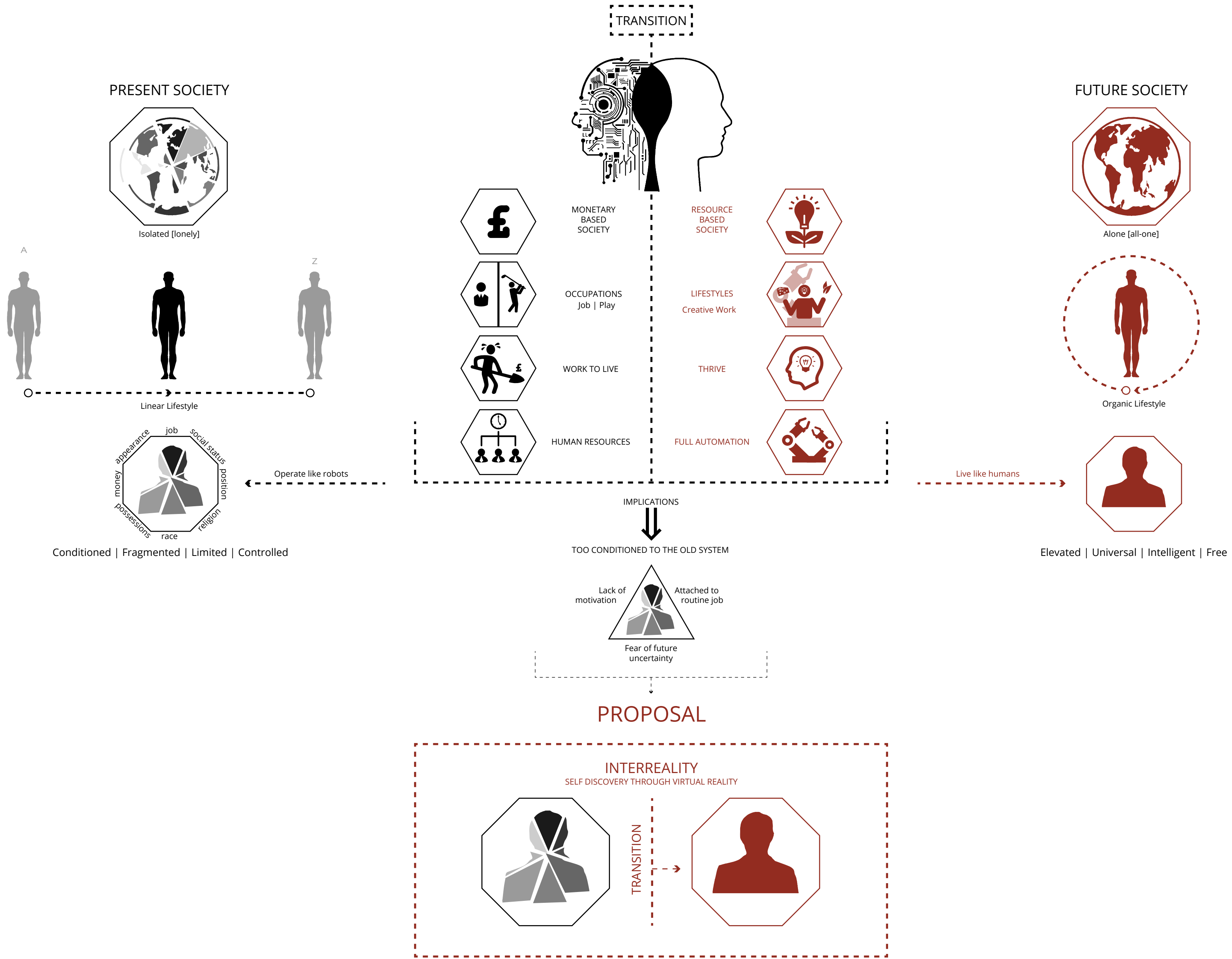
*"In the future humanity will be free of all kinds of work that is really an insult to the complex human brain,  
that require no great thought, no great creativity.  
Leave all that to the computer and we can leave to ourselves those things that the computer can't do.  
Such things as imagination, creativity, fantasy, intuition."*

- Isaac Asimov , 1992



# WAVE 5

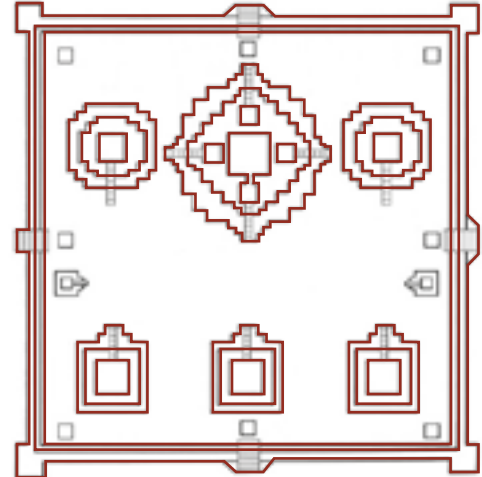
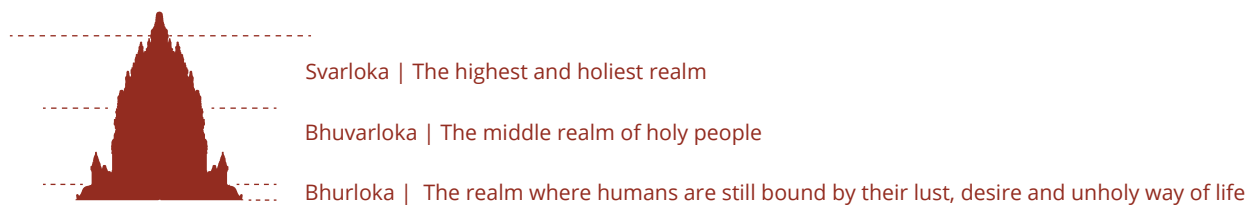
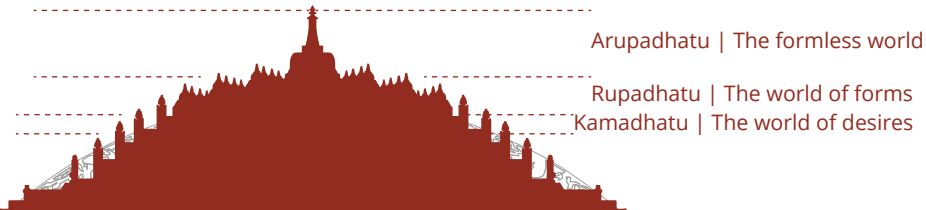
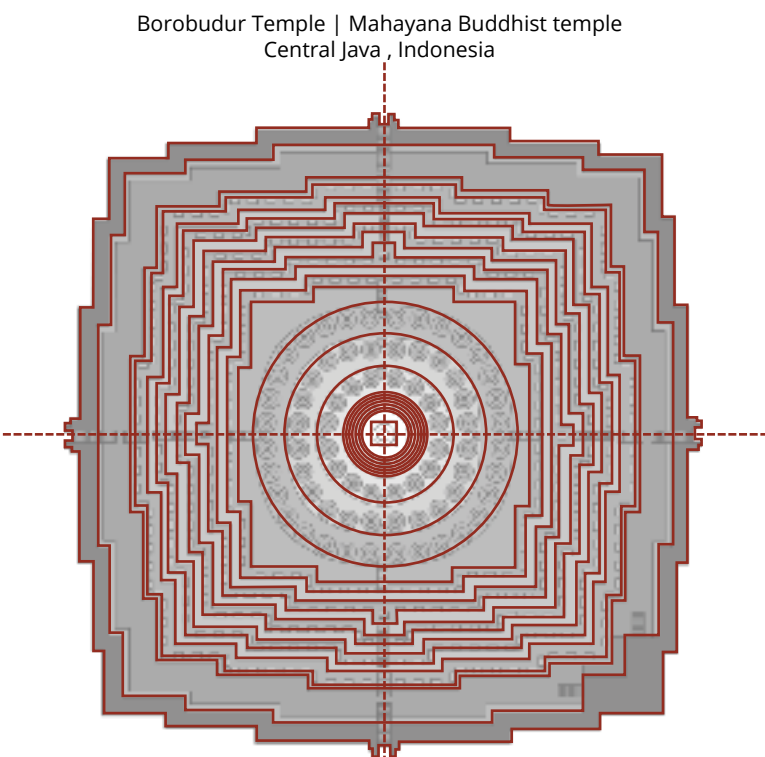
TRANSITION INTO A NEW REALM OF HUMANITY | PROPOSAL





# THE MANDALA

ARCHITECTURE WITH SPIRITUAL SIGNIFICANCE



The mandala is a spiritual symbol in Hinduism and Buddhism that represents the universe. Temples, such as the Borobudur and Prambanan have the shape of a mandala in plan and each level closer to the centre is a step closer to enlightenment. They symbolise our journey in life and the process in which a person is transformed spiritually. For example, the highest point on the Borobudur temple represents "the formless world", the transition of a person from the material realm into the spiritual. A process achieved through meditation in which the spirit is disembodied.



# AYAHUASCA

THE BREW OF ENLIGHTENMENT



Ayahuasca is an Amazonian plant mixture that is capable of inducing altered states of consciousness. Ranging from mildly stimulating to extremely visionary, ayahuasca is used primarily as a medicine and as a shamanistic means of communication, typically in a ceremonial session under the guidance of an experienced drinker.



The main ingredient of this jungle tea is a vine, Banisteriopsis caapi, which like the tea itself is also called ayahuasca (which means 'vine of the soul'). The secondary ingredient is either chacruna or chagropanga, plants that contain a relatively high amount of the psychedelic substance DMT.



▽ Beginning of transformation | Intention



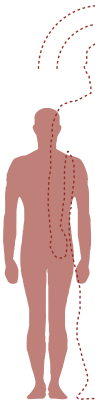
Weak mind | Lost soul

▽ Catharsis | Purgation & Purification | Intellectual Clarification



Mental preparation

▽ Trigger | Ayahuasca



ECSTASY  
[out of body experience]

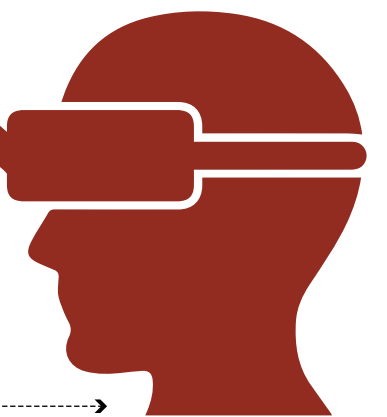
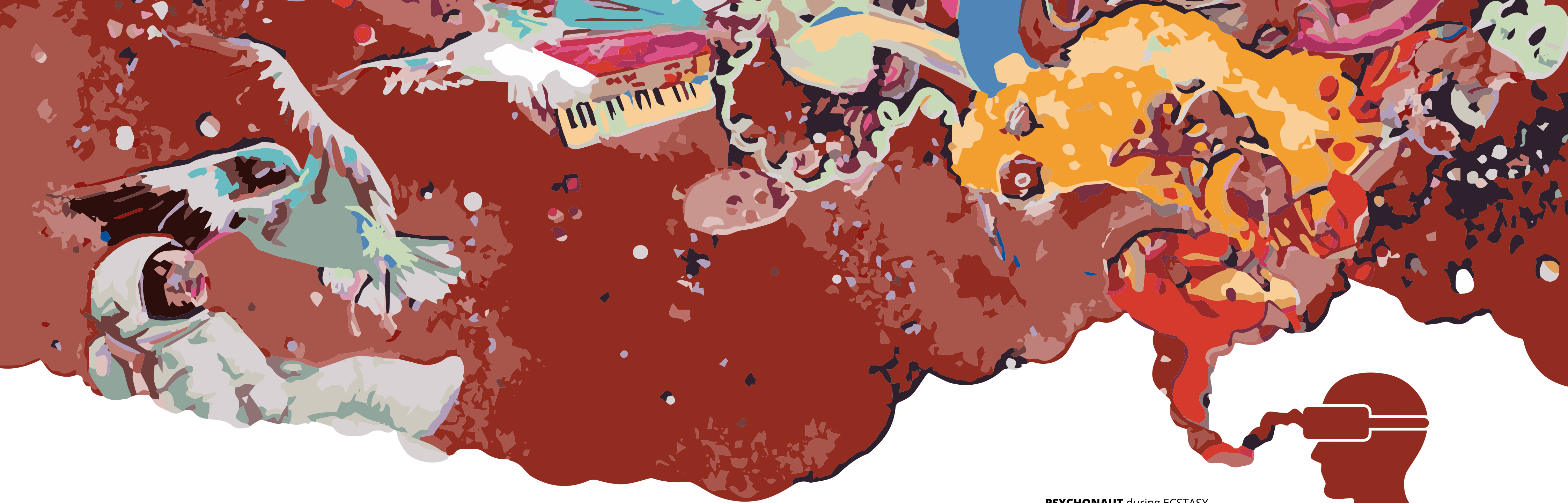
▽ Renewal | Restoration



Awareness | Enlightenment  
[transformed soul]

Ayahuasca induces a psychedelic, visionary state of mind and this effect is employed by various people for various reasons. Shamans or medicine men take ayahuasca to communicate with nature or to see what is causing a patient's illness on a spiritual level. In Brazil several religions can be found that pivot around gatherings where ayahuasca is taken by all participants. Drinking ayahuasca and singing together takes them into a healing and inspiring kind of trance. In the past few decades ayahuasca is slowly gaining interest from Western society as well. Not only academic researchers in the field of psychotherapy have shown an increased interest. **Psychonauts**, i.e. people who practice responsible and conscious use of mind-altering substances, use ayahuasca to confront themselves with the richness of the mind, the infinity of the universe, and their deepest fears, so as to experience ecstasy resulting from facing and overcoming these fears. Ayahuasca is not a miracle cure in the sense that you drink the brew and all your troubles have vanished within a couple of hours. It is a miracle cure though, in the sense that **it brings unconscious and seemingly other-worldly processes to surface.**





## PSYCHONAUT during ECSTASY

Psychonaut | a sailor of the mind

A research paradigm in which the researcher voluntarily immerses himself or herself into an altered mental state in order to explore the accompanying experiences. The psychonaut ventures through the mind to discover hidden places.

During ECSTASY,

"the soul frees itself from matter entirely and unites with the Deity, the One, to become the One itself."

- Julian Marias, History of Philosophy



## IVR

Immersive Virtual Reality

Virtual Reality is a form of out-of-body experience, ecstasy. It is common that when one experiences ecstasy, it causes a transformation in that person's life. It changes the perspective of the world and therefore the way it can be interpreted. As Jean Baudrillard states, the world is a "hyperreality" and everything around us is a form of symbol and representation of something that may or may not exist. Thus our reality is nothing more than our perception of it.



# TERENCE McKENNA

A SAILOR OF THE MIND

*"The importance of virtual reality is that it is a technology that will allow us to show each other our dreams. We will be able to build structures in the imagination that we cannot share now with each other. I imagine a world where children begin to build their virtual realities by the time they are 5 years old. By the time they reach 20, these virtual realities may be the size of Manhattan. My reality is not how I look, it is who I am. And the only way I can show that to you is only if I could invite you inside. Then what real intimacy will mean, is saying to someone 'Would you like to visit my world? With my visions, my values, my dreams, my fears...'. "*

***In a sense, what virtual reality is, it is a strategy to let us turn ourselves inside out so that we see each other's minds."***

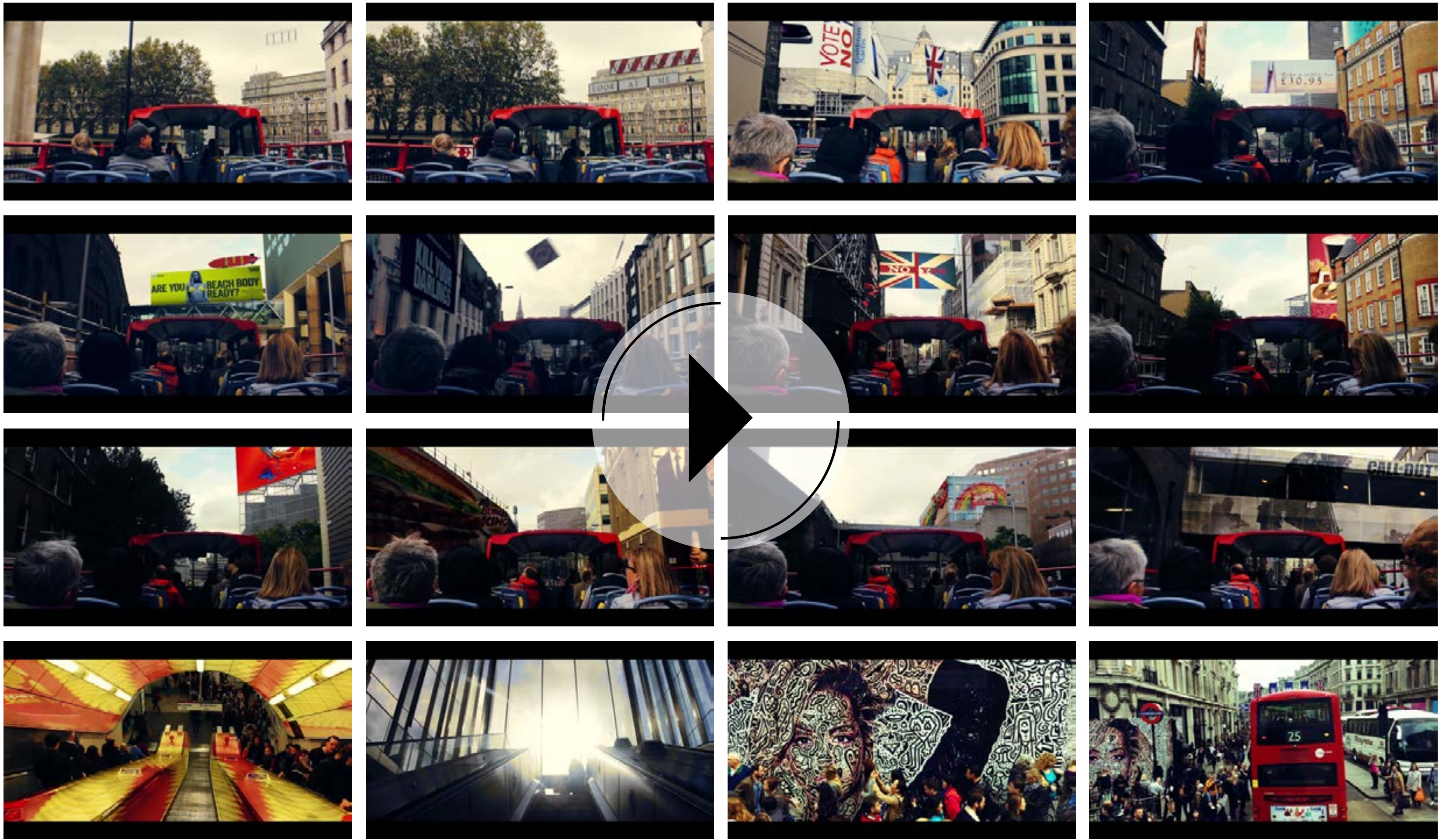


**Terence McKenna** was an American ethnobotanist, mystic, **psychonaut**, lecturer, author, and an advocate for the responsible use of naturally occurring psychedelic plants. He spoke and wrote about a variety of subjects, including psychedelic drugs, plant-based entheogens, shamanism, metaphysics, alchemy, language, philosophy, culture, technology, environmentalism, and the theoretical origins of human consciousness.



FILMIC INVESTIGATION  
"THE EXPERIENCE OF OBSERVATION"

PLAY FILM



This is a follow up film to the previous one. The previous film ended with a scene of people sitting on the upper deck of a hop-on-hop-off tourist bus. It is an attempt to symbolise that we are dragged in various spaces or situations and exposed to different information; we are not in control of that journey, in the same way that we are not really in control of our journey in life. This film attempts to depict an exaggeration of all the signs and symbols around us that we never notice.  
[Narration by Alan Watts]



# "THE EXPERIENCE OF OBSERVATION"

4D DRAWING





# INTERREALITY

VIRTUALLY REAL AND REALLY VIRTUAL

The French sociologist and philosopher Jean Baudrillard, in his book "Simulacra and Simulation", examined the different signs and representations that exist in society and how they alter our perception of reality. He coined the term "Hyperreality" to describe the seamless coexistence of fiction and reality to the point where they become indistinguishable from each other.

SIMULATION



The **first stage** is a "reflection of a profound reality", a faithful representation of an actual image, which might even be correct.

SIMULATION



The **second stage** "masks and denatures a profound reality". It can be seen as an unfaithful copy. The image does not reveal reality, but cannot perfectly hide the fact that it is not real.

SIMULATION

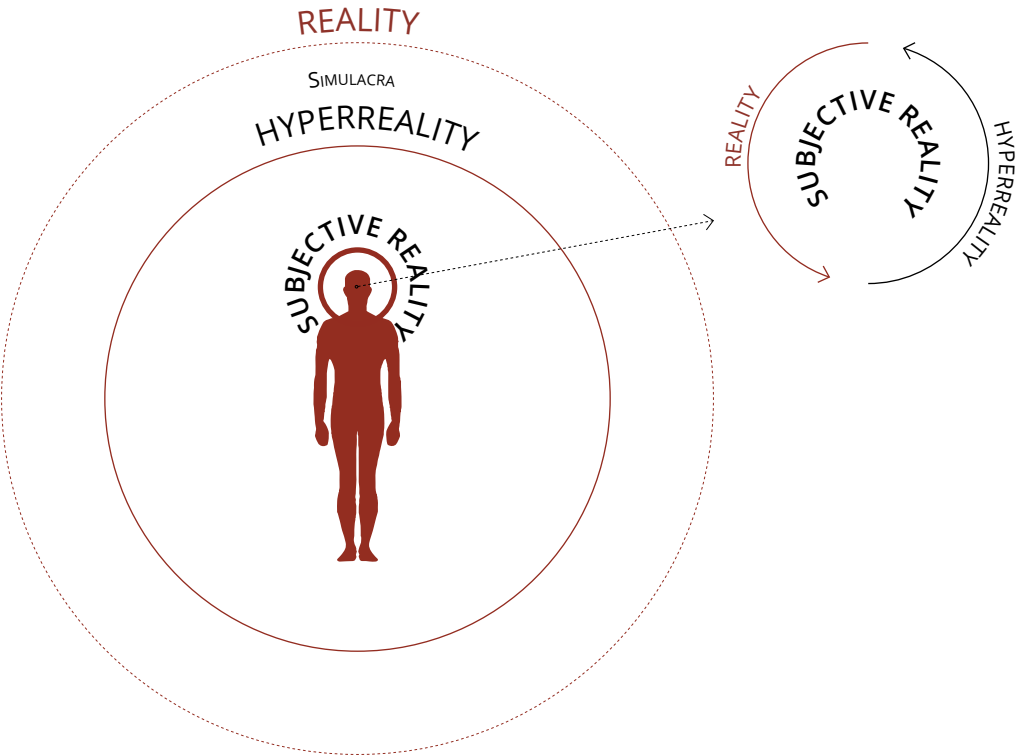


The **third stage** "masks the absence of a profound reality". The image acts as a faithful copy, however it is a copy with no original. It is simulating something real, but it does not represent anything that is real.

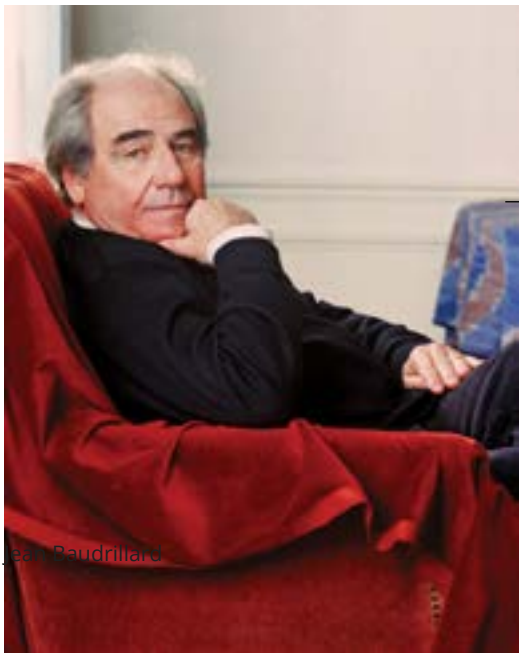
SIMULACRUM



The **fourth stage** is an image that "has no relationship to any reality whatsoever; it is its own pure simulacrum". The image is simulating images that claim no representation to any reality. It is a "Hyperreal".



VIRTUAL & REAL AND SIMULACRA & SIMULATION



## HYPERREALITY

*"The very definition of the real becomes: that of which it is possible to give an equivalent reproduction . . . At the limit of this process of reproducibility, the real is not only what can be reproduced, but that which is always already reproduced. The hyperreal . . . transcends representation . . . only because it is entirely in simulation."*  
(Baudrillard, 1983, p. 146-147)



"Interreality" is a personalized immersive e-experience whose main novelty is a hybrid, closed loop empowering experience, bridging physical and virtual worlds. The main feature of interreality is a twofold link between the virtual and the real world:

- Behaviour in the physical world influences the experience in the virtual world
- Behaviour in the virtual world influences the experience in the real world

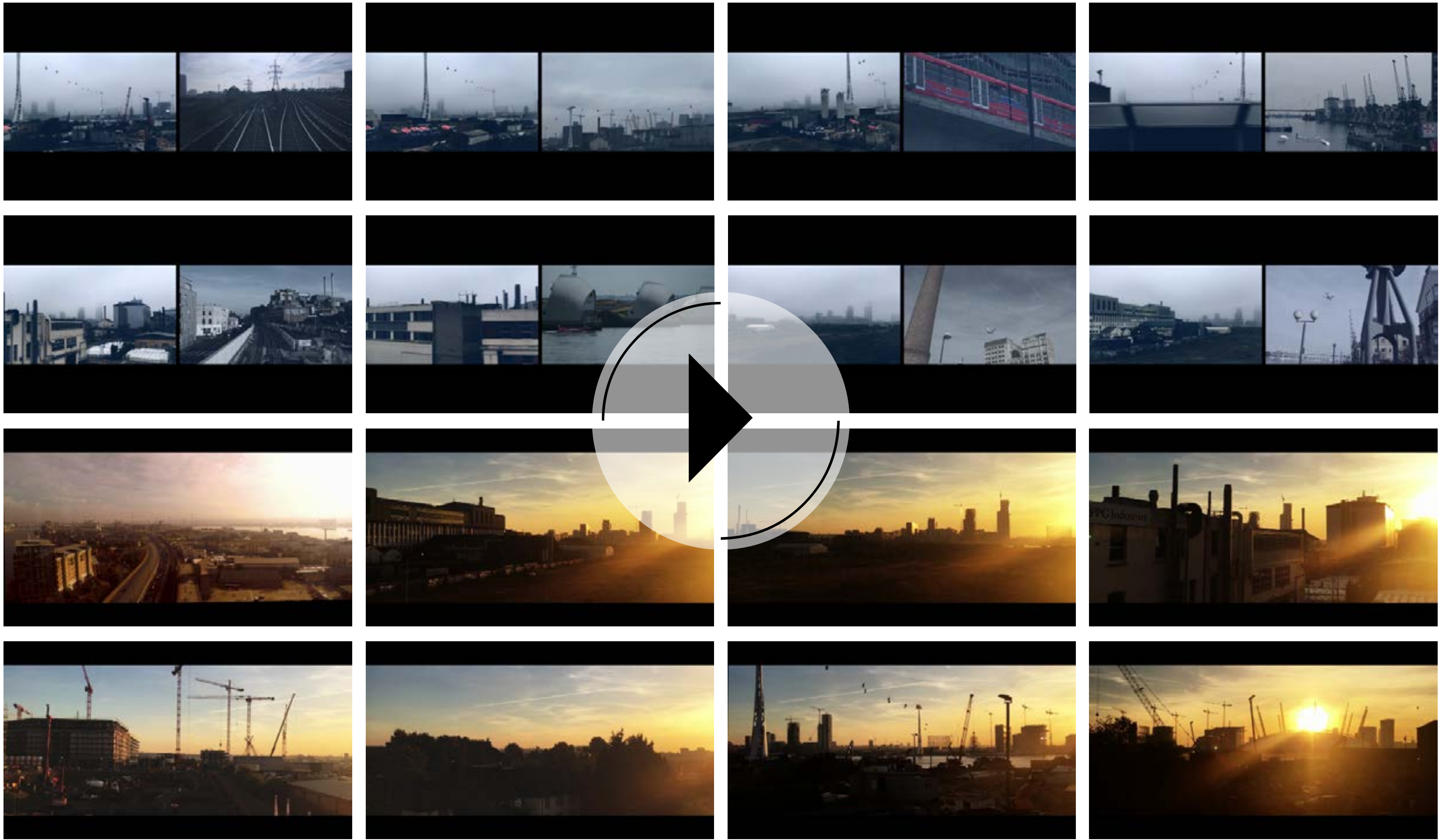






FILMIC INVESTIGATION  
SITE | "SILVERTOWN 2.0"

PLAY FILM

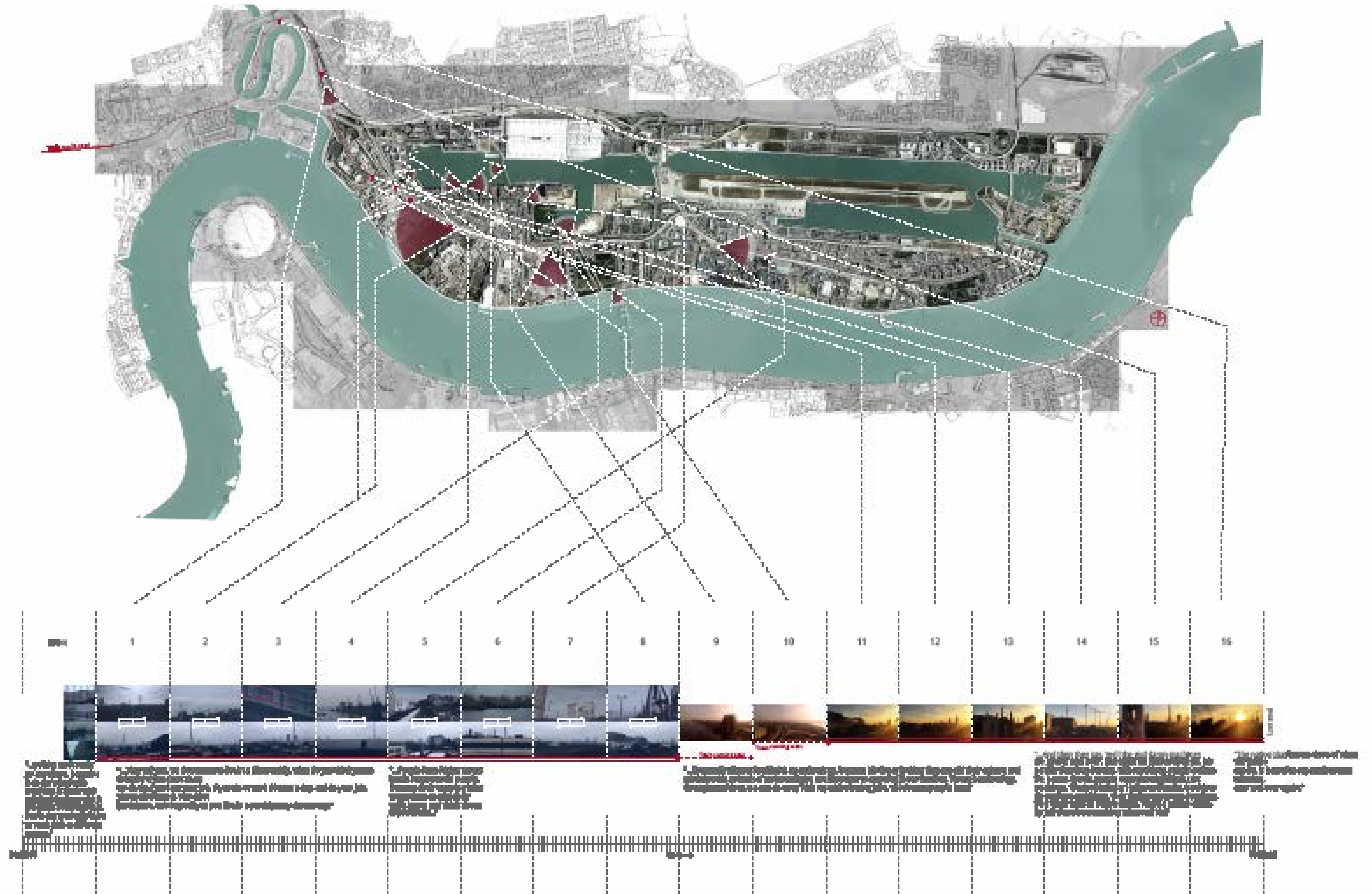


This short film attempts to capture the atmosphere of Silvertown as well as a filmic exercise on how to portray a certain feeling to a space using image grading, and tone and timing.



# "SILVERTOWN 2.0"

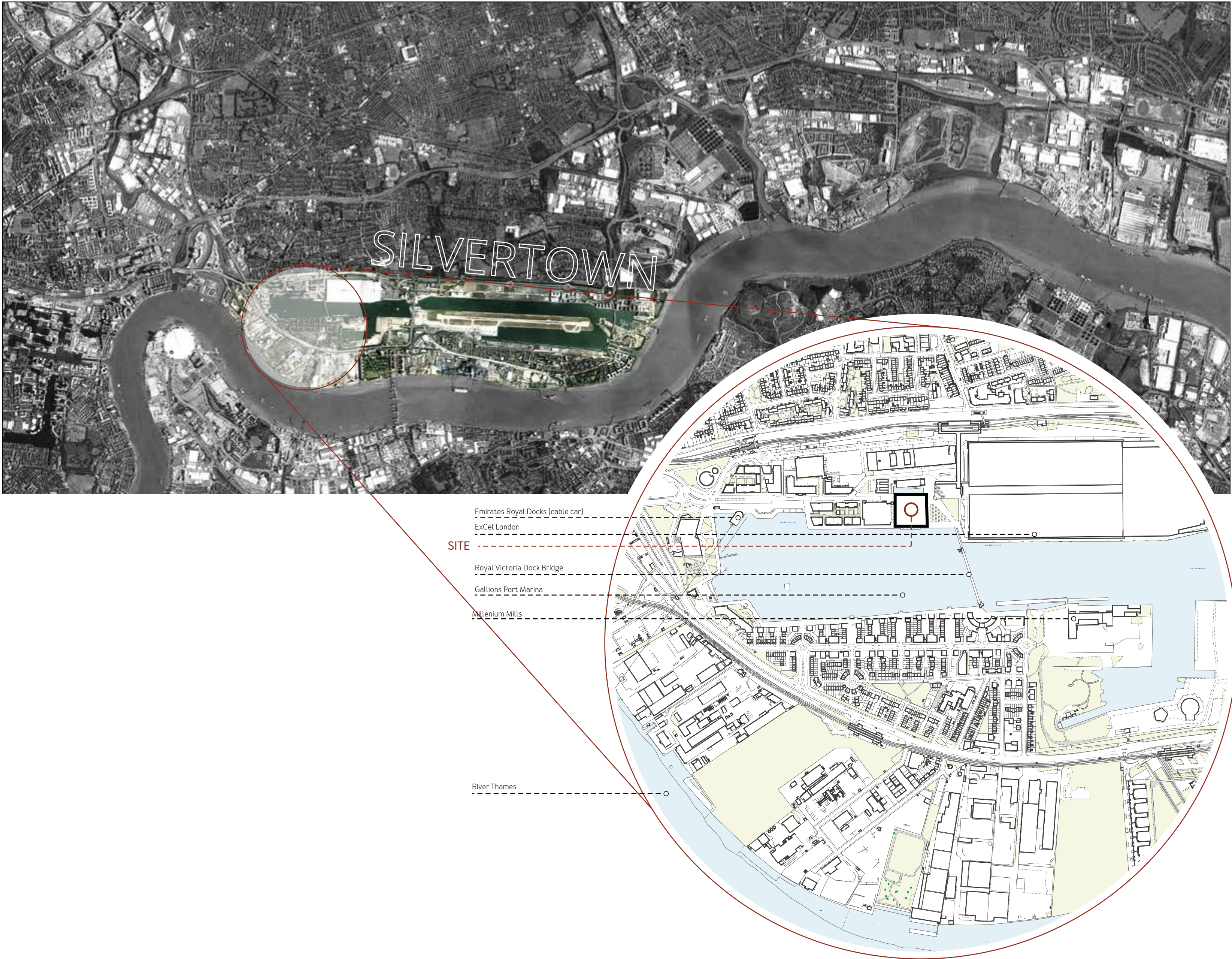
4D DRAWING





# SITE LOCATION

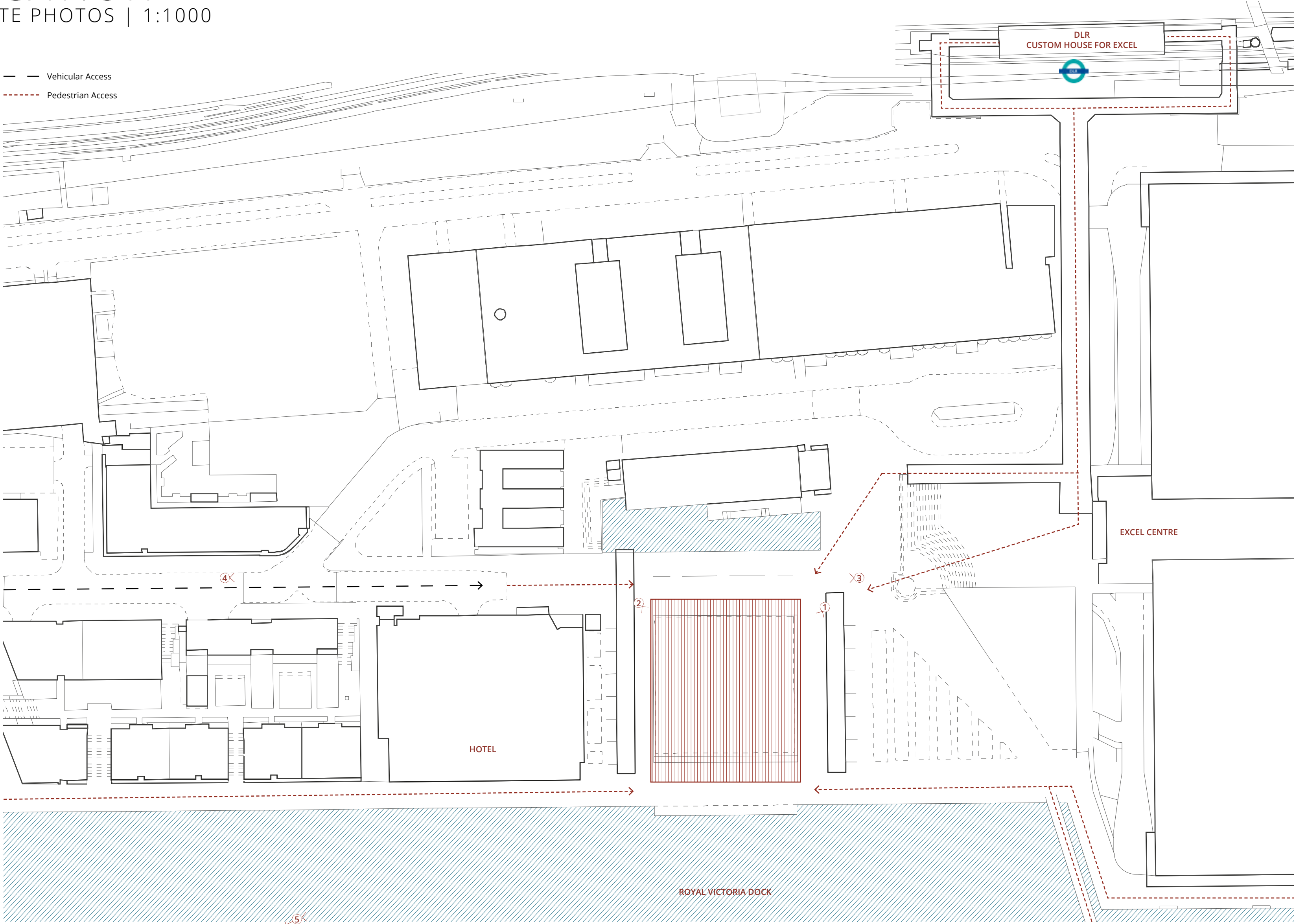
SILVERTOWN | LONDON





# SITE LOCATION

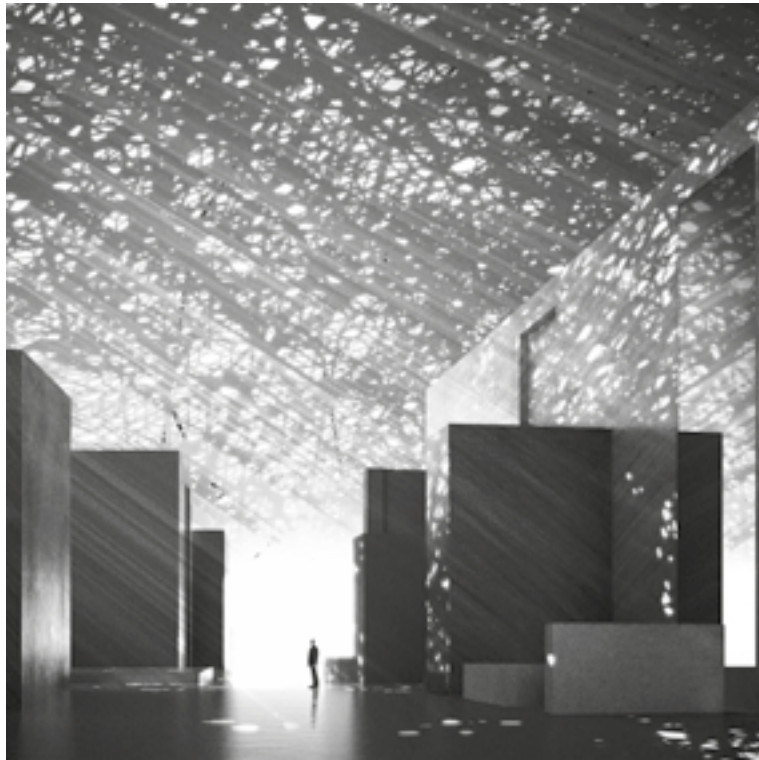
ACCESS AND SITE PHOTOS | 1:1000





# BUILDING REFERENCES

QUALITIES AND AMBITIONS



**Louvre Abu Dhabi | Ateliers Jean Nouvel**

- Light qualities
- Sense of scale
- Heavy and light geometries
- Contrasting Elements



**St. Petersburg Dance Hall | Snøhetta**

- Natural sunlight
- Large sense of scale
- Overlooking balconies



**Musée de l'archéologie | Ateliers Jean Nouvel**

- Water in skylight | Water caustics effects on building interior
- Large sense of scale
- High contrasting geometry | Sharp orthogonal corners



**National Library of Israel | ODA**

- Light qualities
- Large sense of scale
- Natural light from atrium skylight
- High contrasting geometry



**Oslo National Museum | Moxon Architects**

- Light qualities
- Large sense of scale
- Natural filtered light
- High contrasting geometry
- Contrast of heavy and light geometries
- Overlooking elements



**New Bauhaus Museum | Architekten HRK**

- High contrasting geometry | Sharp orthogonal corners
- Natural light
- Overlooking elements



# BUILDING REFERENCES

QUALITIES AND AMBITIONS



**Stuttgart City Library | Yi Architects**

- Repetition
- Sense of scale
- Large atrium
- Overlooking balconies



**Vasconcelos Library | Alberto Kalach**

- Repetition
- Natural sunlight from skylight
- Overlooking balconies
- Large sense of scale



**Shiba Ryotaro Memorial Museum | Tadao Ando**

- Repetition
- Natural light



**Snøhetta | Budapest Museum**

- Large sense of scale
- External circulation and seating area
- High contrasting geometry



**Magdeburger Hafen | LAN Architecture**

- Contrasting materiality
- Light qualities
- Large sense of scale
- Natural light
- Light geometry
- Overlooking elements

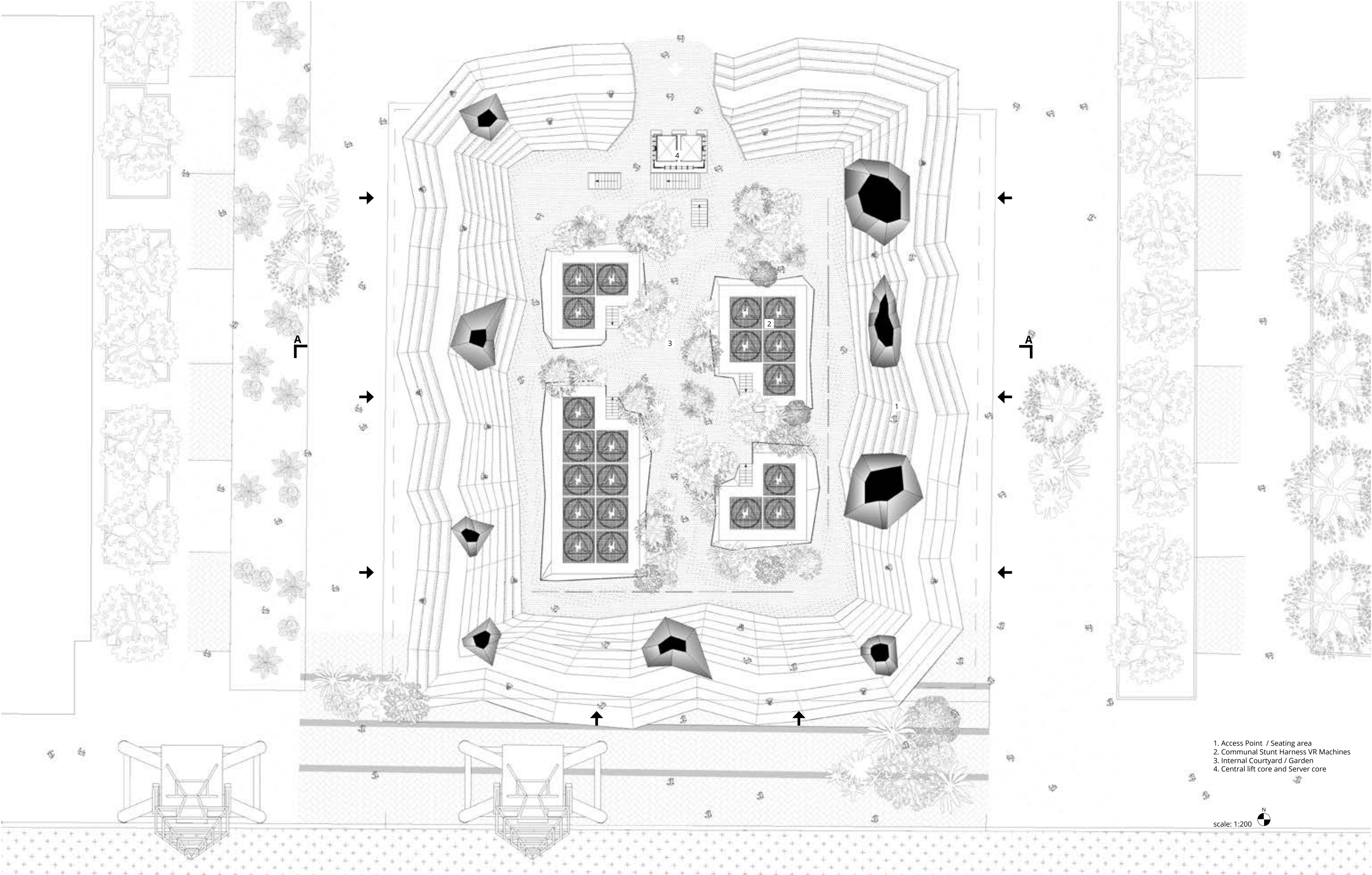


**Beinecke Rare Book and Manuscript Library | SOM**

- Grand sense of scale
- Repetition
- Overlooking elements



GA PLANS  
GROUND FLOOR

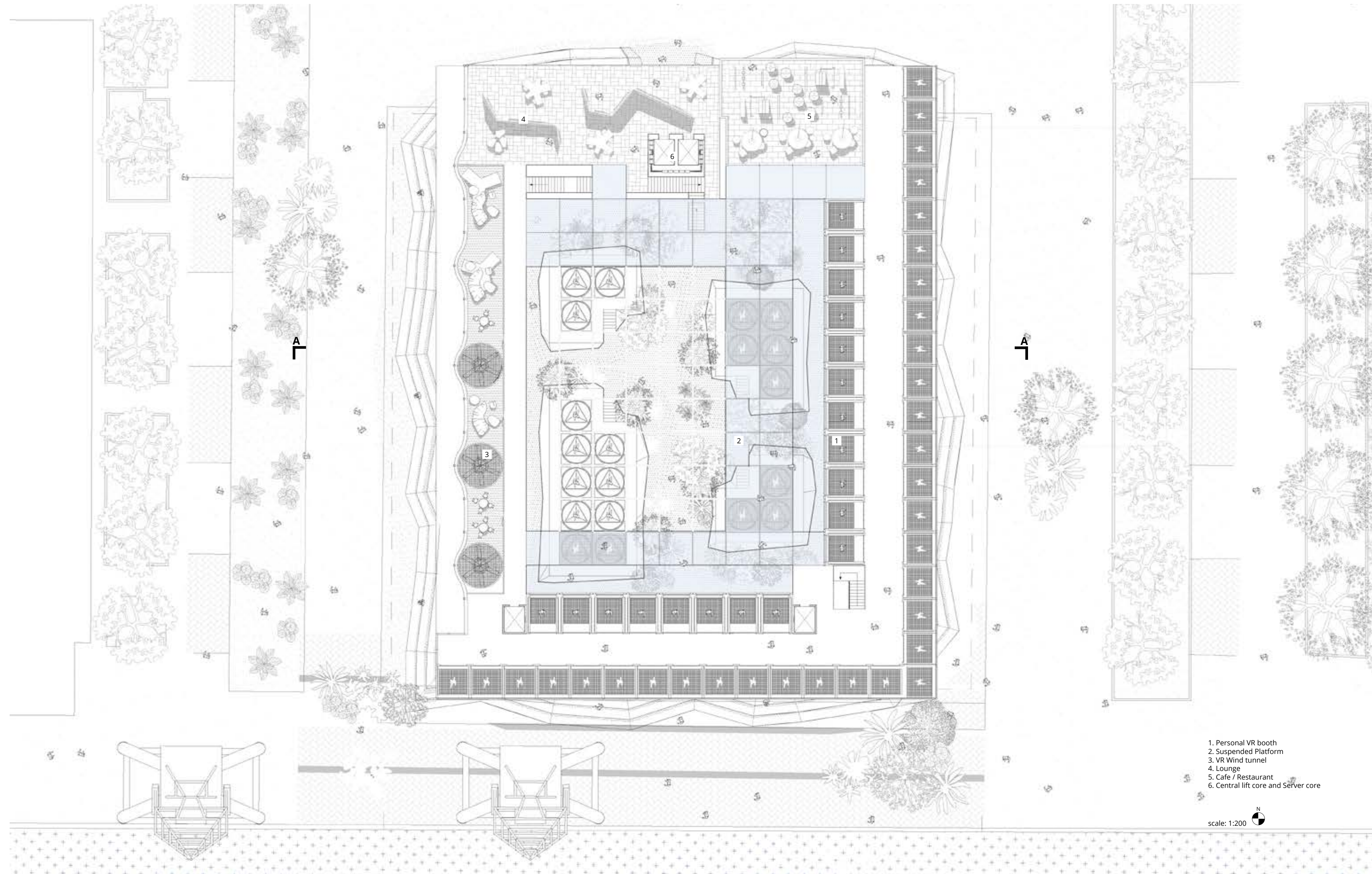


- 1. Access Point / Seating area
- 2. Communal Stunt Harness VR Machines
- 3. Internal Courtyard / Garden
- 4. Central lift core and Server core

scale: 1:200

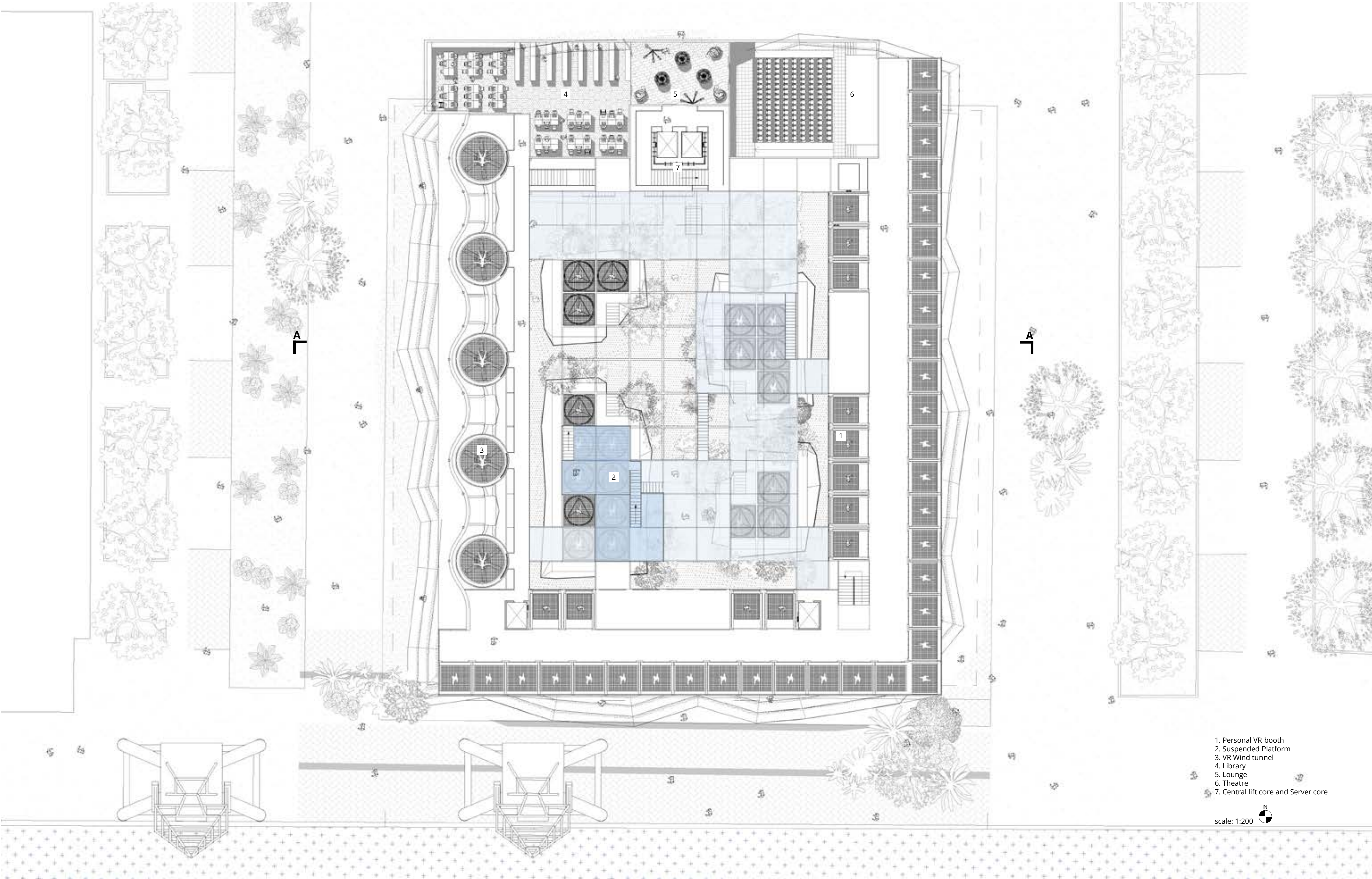


GA PLANS  
FLOOR 1



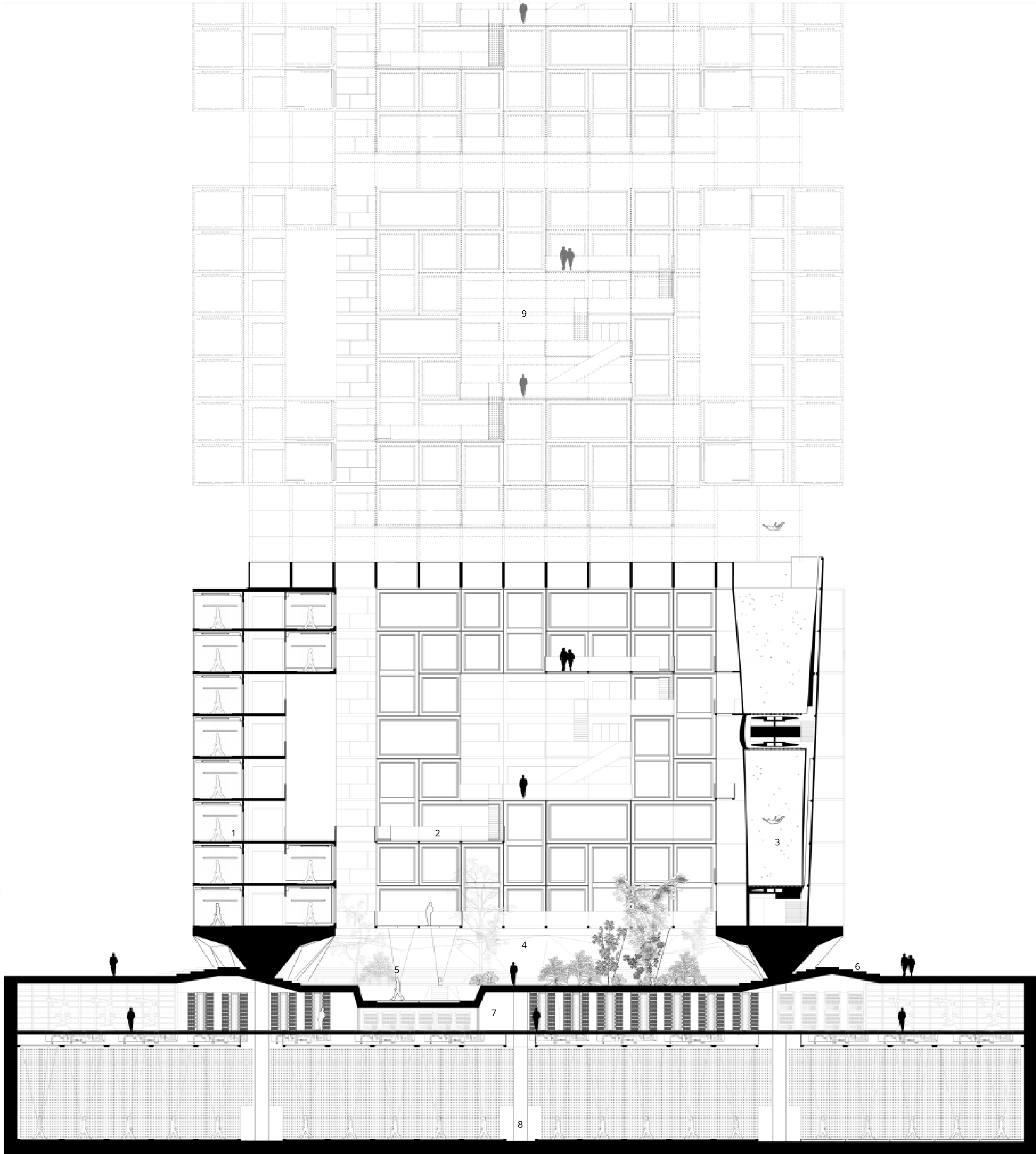


GA PLANS  
FLOOR 6



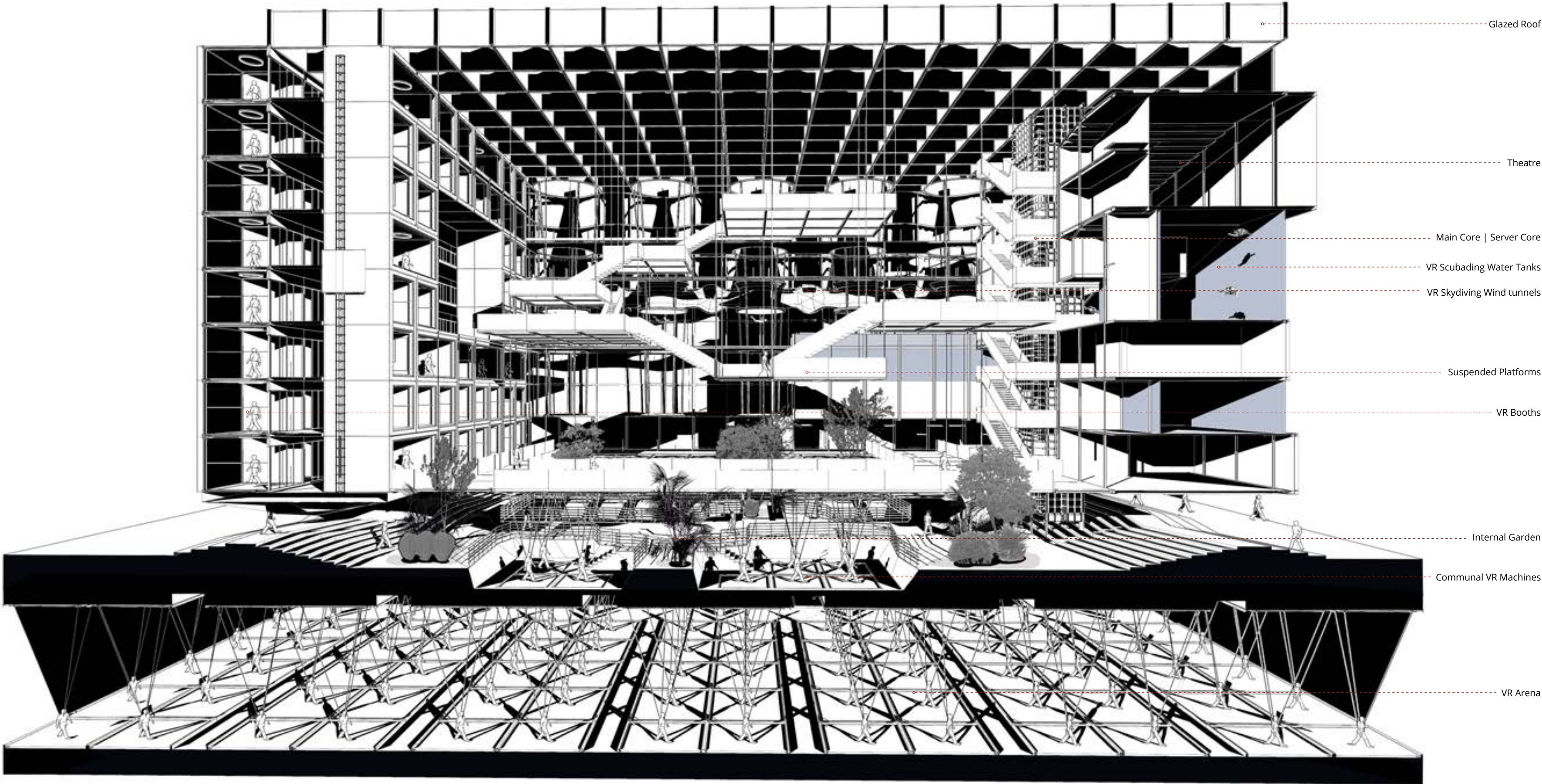


SECTION AA





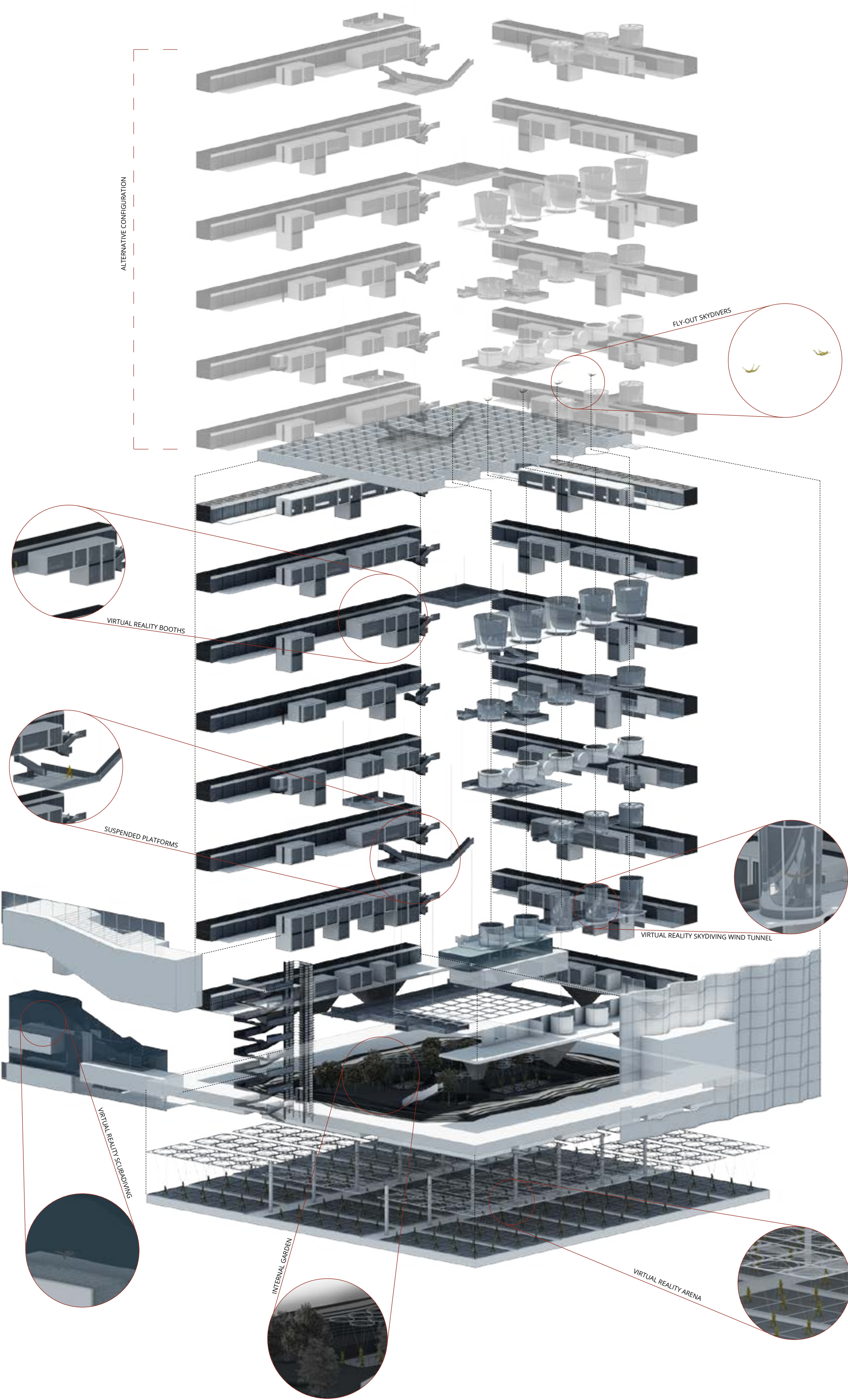
SECTIONAL PERSPECTIVE  
BUILDING OVERVIEW





# EXPLODED ISOMETRIC

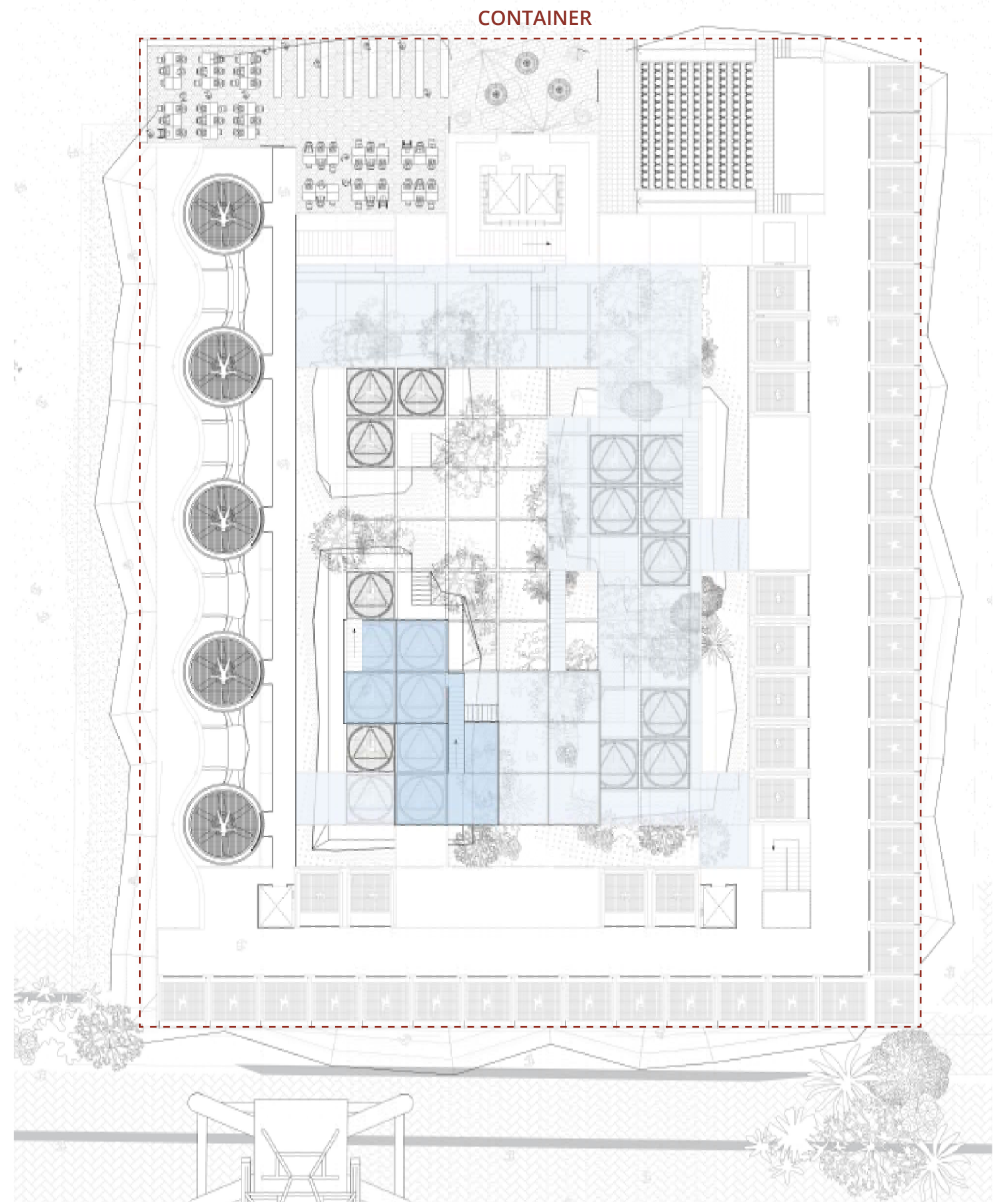
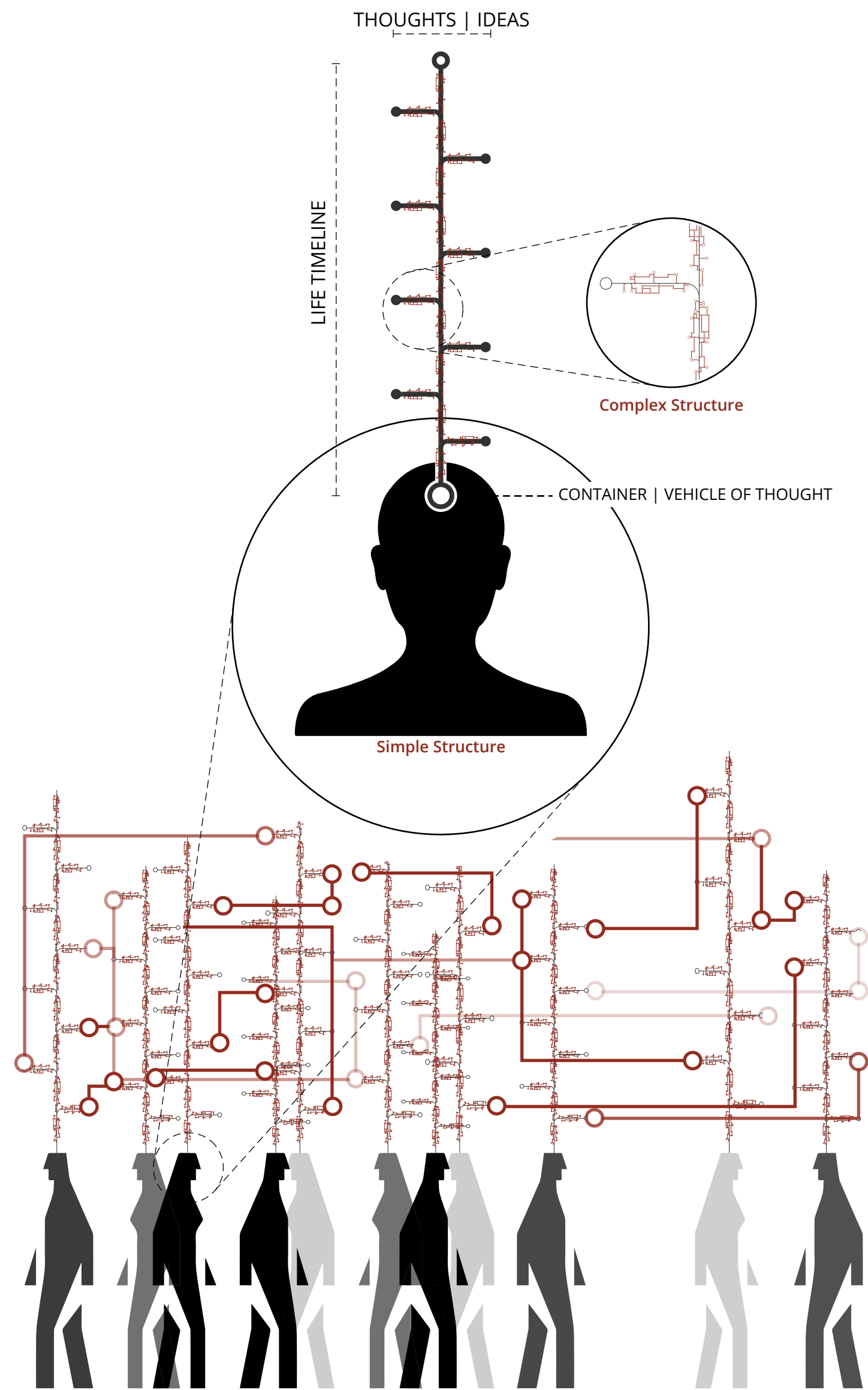
BUILDING COMPONENTS AND ALTERNATIVE CONFIGURATION





# DESIGN CONCEPT

VEHICLE OF THOUGHT



*"Society is the product of relationship, of yours and mine together. If we change in our relationship, society changes."*

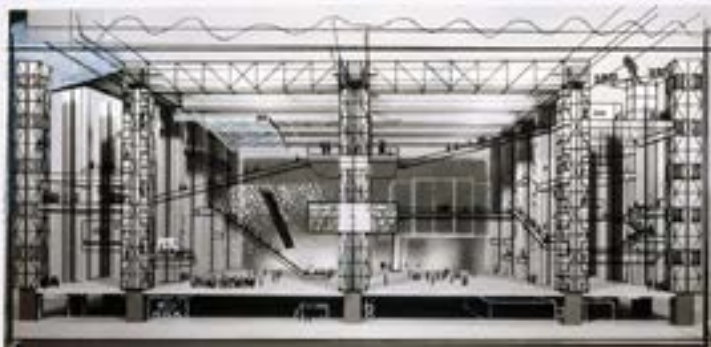
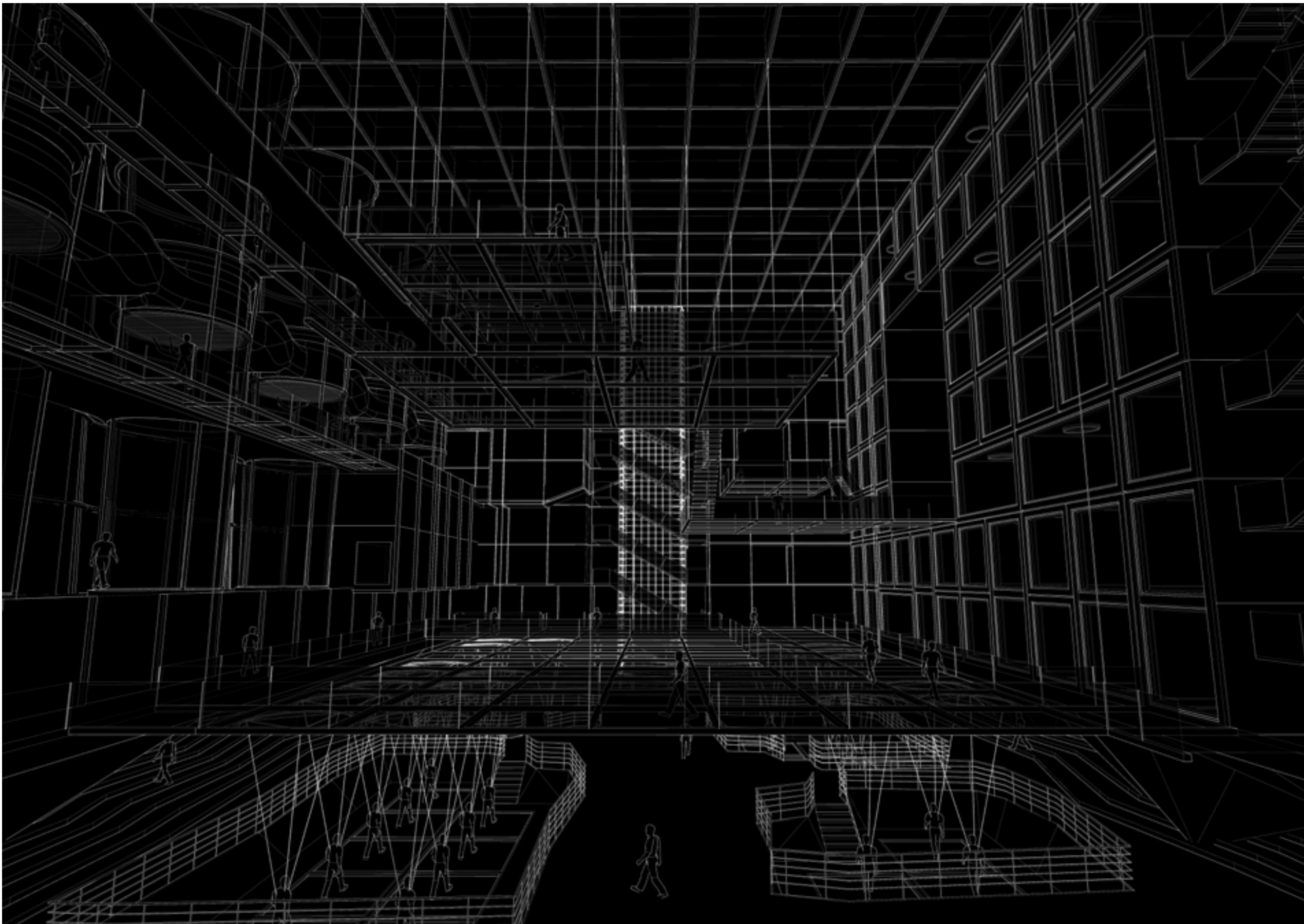
- Jiddu Krishnamurti

Our external appearance is merely a vehicle and a container of ourselves. Who we are is a collection of thoughts and ideas which we gathered throughout our lives from our environment and from the people around us. We are all one collective consciousness, interpreted in different ways. Using this idea as a design model, I tried to emphasize the contrast of the building's exterior to the interior, in the way that our head structure is a very simple form in comparison to the complexity of our brain's data. The exterior of the building is a simple form blending in with the neighbouring buildings, whereas the interior is a more complex and versatile space that stimulates serendipity.



# ATRIUM

A PLACE FOR SERENDIPITY



Fun Palace | Cedric Price

*“Choose what you want to do – or watch someone else doing it. Learn how to handle tools, paint, babies, machinery, or just listen to your favourite tune. Dance, talk or be lifted up to where you can see how other people make things work. Sit out over space with a drink and tune in to what’s happening elsewhere in the city. Try starting a riot or beginning a painting – or just lie back and stare at the sky.”*

- The Fun Palace, Cedric Price, 1961

One of the biggest inspirations for the design of the building was Cedric Price's Fun Palace. A place where one can "choose what he wants to do, or watch someone else doing it.". The principle in the design of the Fun Palace was that the spaces can be constantly adjusted to the needs of each function. Visitors can get inspired by the various activities happening in the building as well as engage with them spontaneously. In the same way, people who visit this building will be able to observe what others are experiencing in virtual reality and then be able to share the same experience. The atrium will act as a meeting point for serendipity to occur.

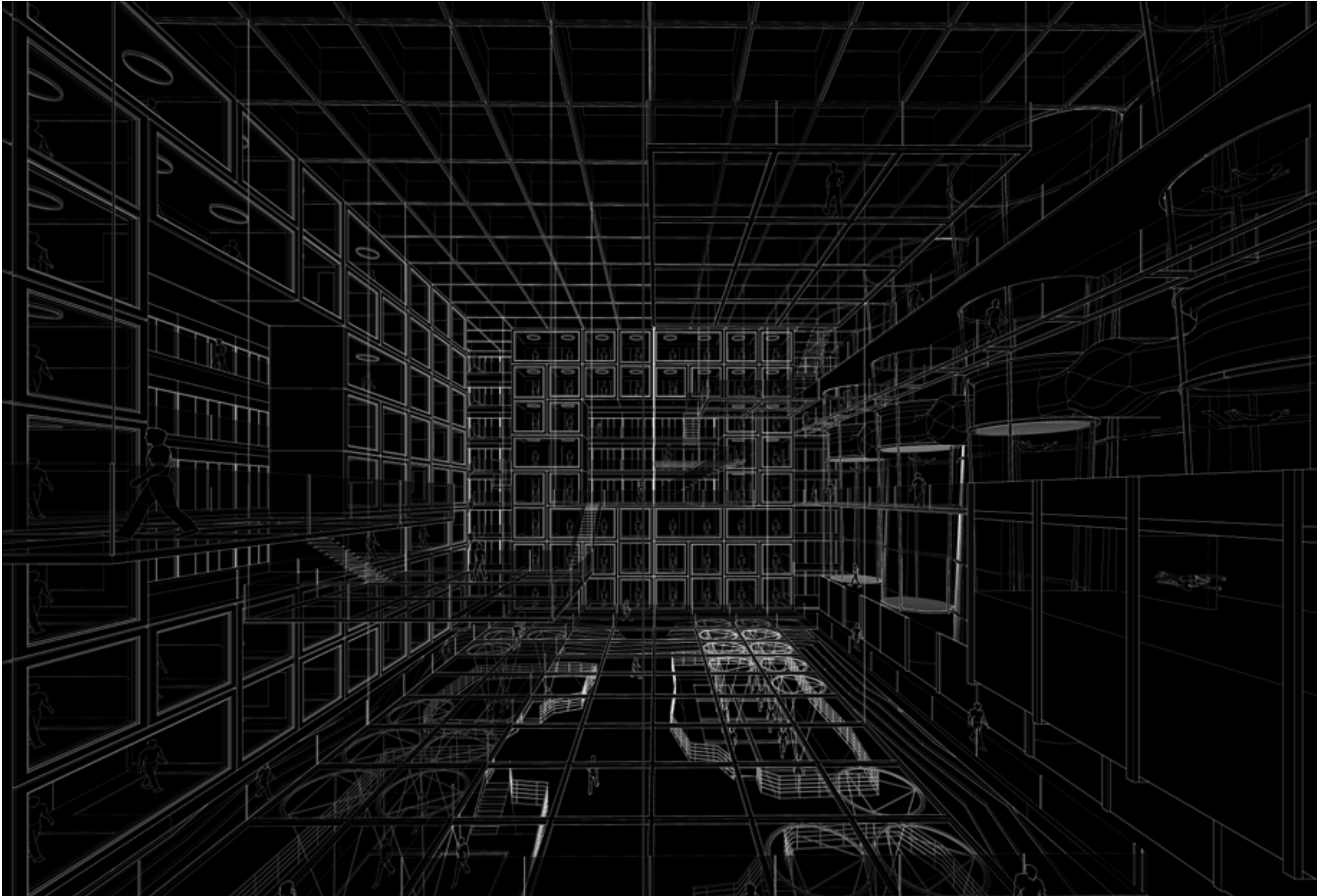


# PANOPTICON

A CRITIQUE ON IMPRISONMENT AND THE OFFICE CUBICLE



Presidio Modelo prison, Cuba.



Michael Ulrich, "Panopticon".



In a scene in "The Matrix Reloaded", Neo confronts the architect of the Matrix. The screens turn on and show different scenes of Neo in different situations. They portray various scenarios of alternative realities that he could have been living.

Likewise, the various VR booths in the building will act as screens where people can observe other people's alternative realities.



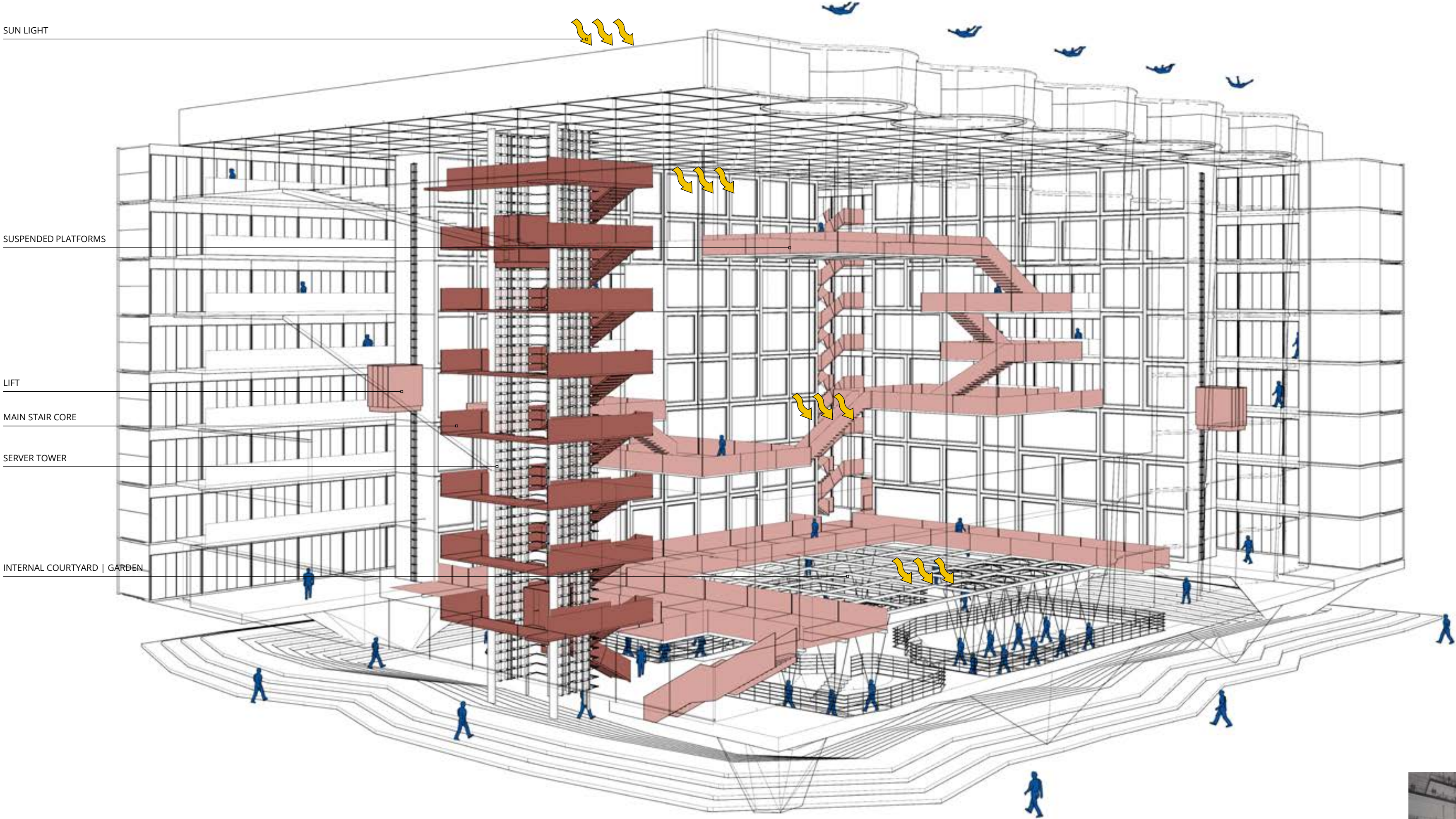
The Panopticon is a type of institutional building designed by the English philosopher and social theorist Jeremy Bentham in the late 18th century. The concept of the design is to allow all (pan-) inmates of an institution to be observed (-opticon) from a single point.

The building's design concept is a critique on how humanity was imprisoned by work, sitting from 09:00 - 17:00 in their cubicles, similarly to a prison cell. The VR booths are positioned in a way that allow visitors to view the VR users from any point in the central atrium, as in a panopticon prison layout.



# ATRIUM AND VERTICAL CIRCULATION

## SUSPENDED PLATFORMS



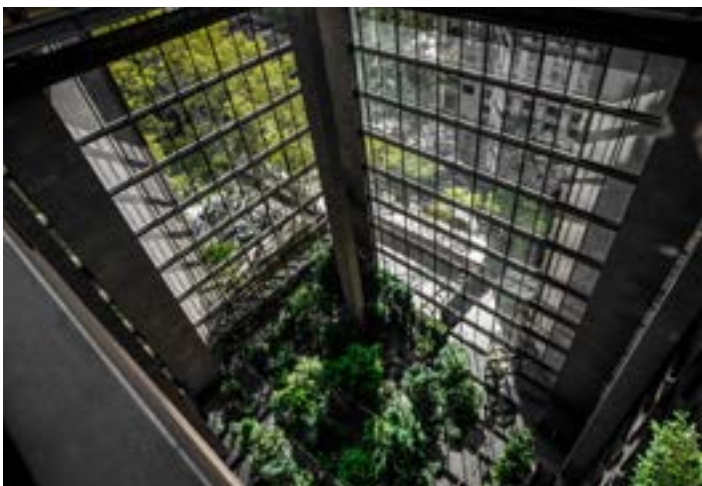
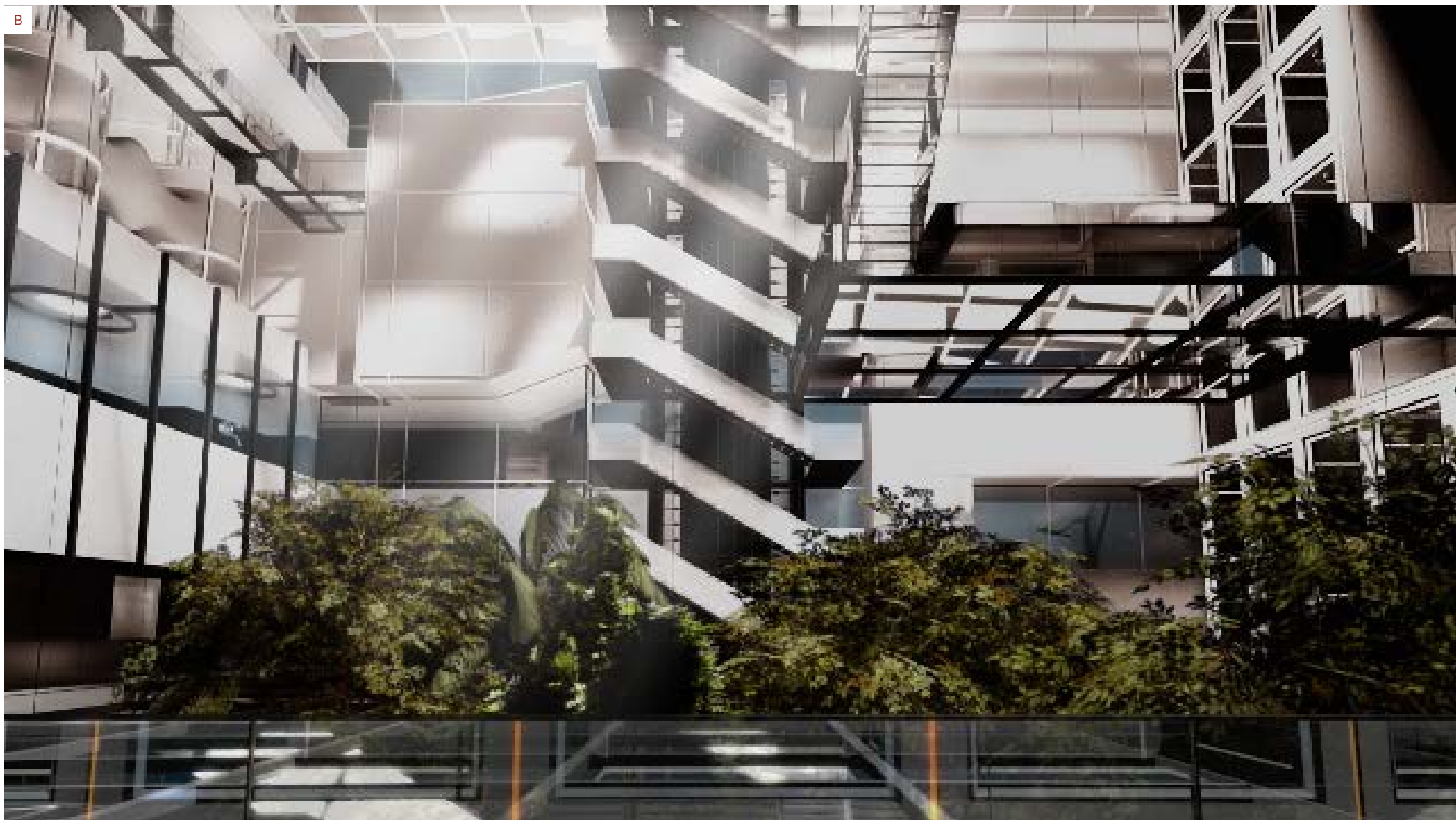
Exhibition Hall with floating levels | Conrad Roland

The main stair core and the suspended platforms provide views of the whole building. People will be able to interact and inspire each other through their virtual experiences. The atrium will be naturally lit through a glazed roof and the light will filter down to the internal garden through the glazed platforms.

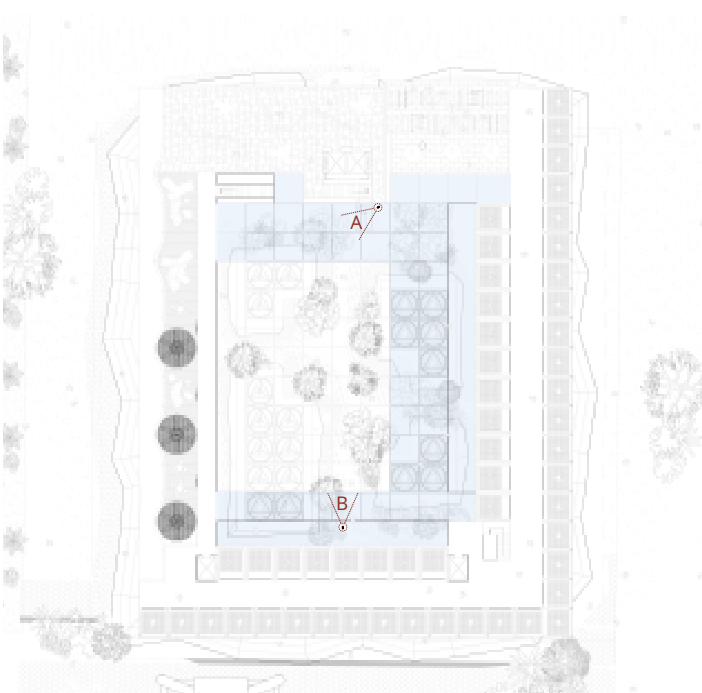


# ATRIUM

INTERNAL COURTYARD AND GARDEN



The Ford Foundation building, Kevin Roche, New York.



The VR programs occupy only a small portion of the site, with the remainder devoted to an interior garden within a greenhouse-like atrium. The flourishing vegetation and generous space provide a focal point for the building's users and an interface between the garden and Silvertown.





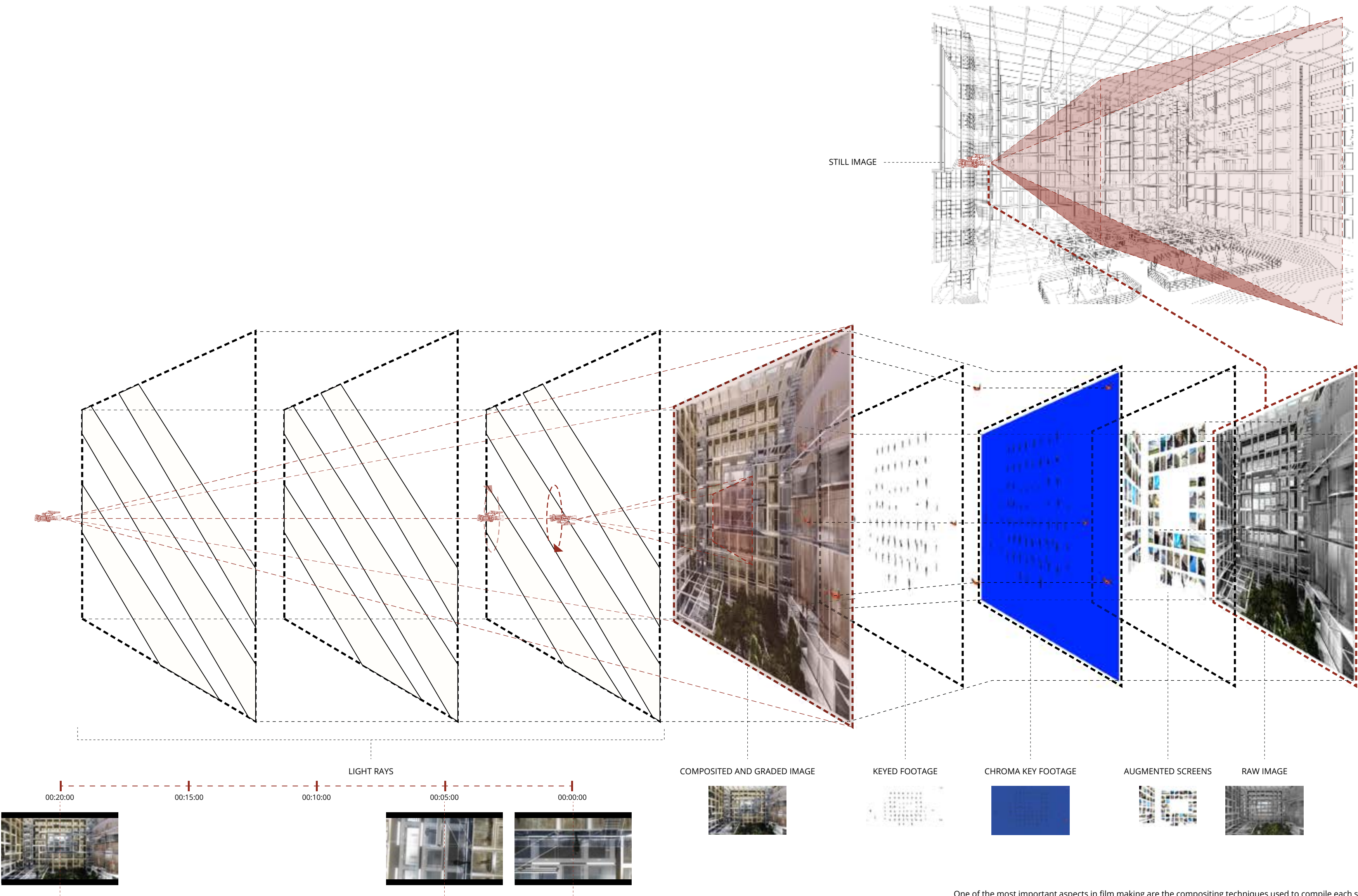






# ATRIUM INTERIOR OVERVIEW SCENE

2.5D COMPOSITING | 4D DRAWING



One of the most important aspects in film making are the compositing techniques used to compile each shot. Depending on the budget, deadline, props available, weather conditions etc, film makers always try to find the best way of achieving the best results with what is available to them.

In achieving the atrium overview shot, I had to make a 20 second animation of the building's model, starting from a close-up and slowly panning out. Each render would take around 1 hour to complete, and at 25 frames per second, that would take 25 hours per second and 500 hours to finish the whole shot. That is 3 weeks in total and excluding post production.

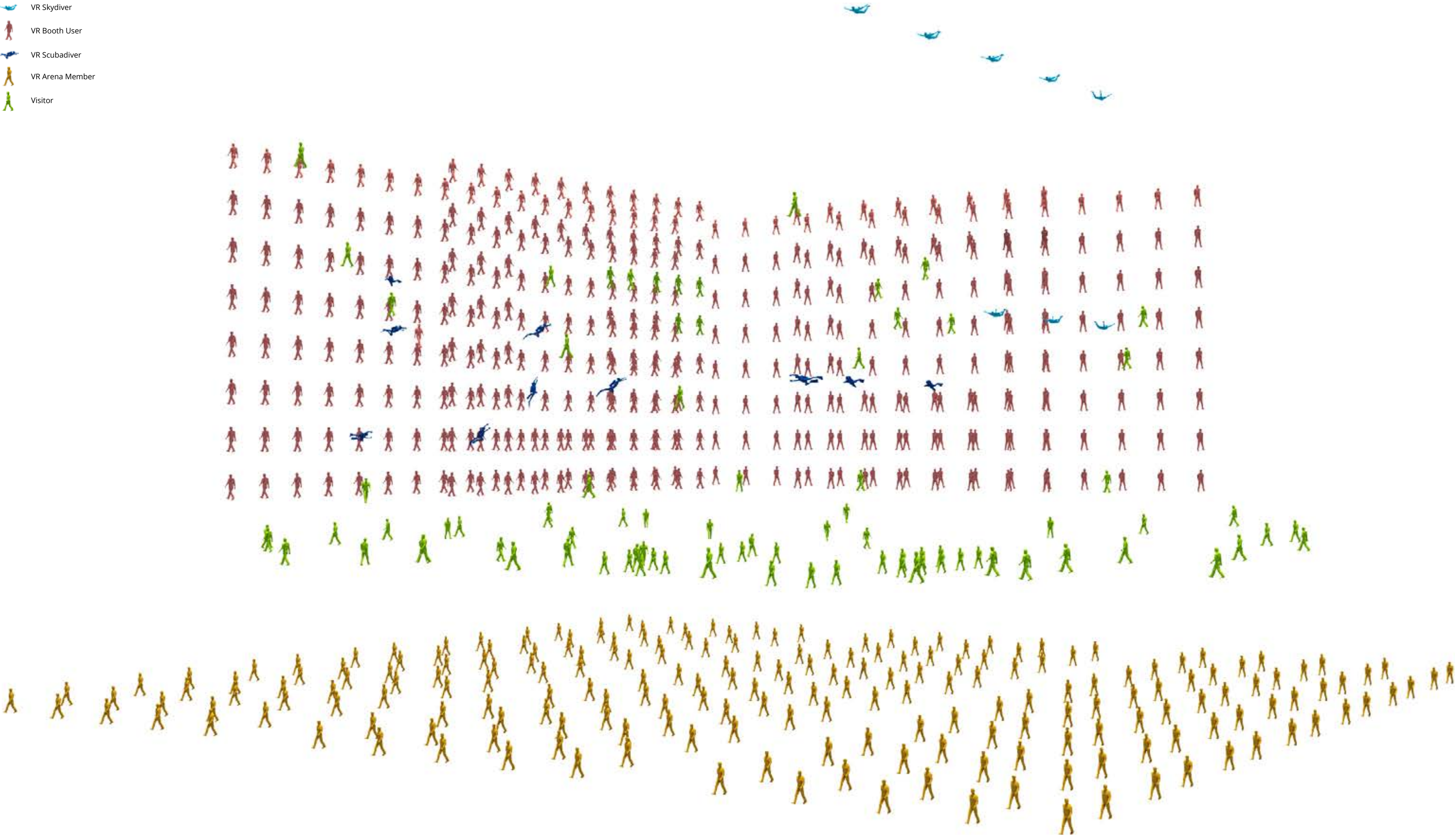
As this would have taken too long, I decided to just render one frame instead and layer all the moving objects on top of it. Once a final 20 second clip was fully layered and graded, I used a technique called 2.5D to give the shot a better sense of depth. I set up a camera in 3D space and set my 20 second composition in the background. Then I layered in front of it 3 layers of sun rays and panned the camera through them.



# BUILDING OCCUPANTS

## VISITORS AND USERS

- VR Skydiver
- VR Booth User
- VR Scubadiver
- VR Arena Member
- Visitor



One of the main components of the architecture are the occupants of each space and their exposure to each-other. Their position and role within the space is what brings the building to life.

I will further explore this aspect of the project using film and compositing techniques to visualise how the spaces are affected by the movement of each person.



# CHROMA KEY COMPOSITING

BACKGROUND AND FOREGROUND SEPARATION



As in every film that uses visual effects and real shot footage of people, the technique most commonly used to composite the two is chroma key compositing or chroma keying. The principal subject is filmed or photographed against a background consisting of a single colour or a relatively narrow range of colours, usually blue or green because these colours are considered to be the furthest away from skin tone. The portions of the video which match the preselected colour are replaced by the alternate background video. The subjects were all instructed to pretend to be in a virtual environment, walking on an treadmill like floor, therefore limited within a small radius.



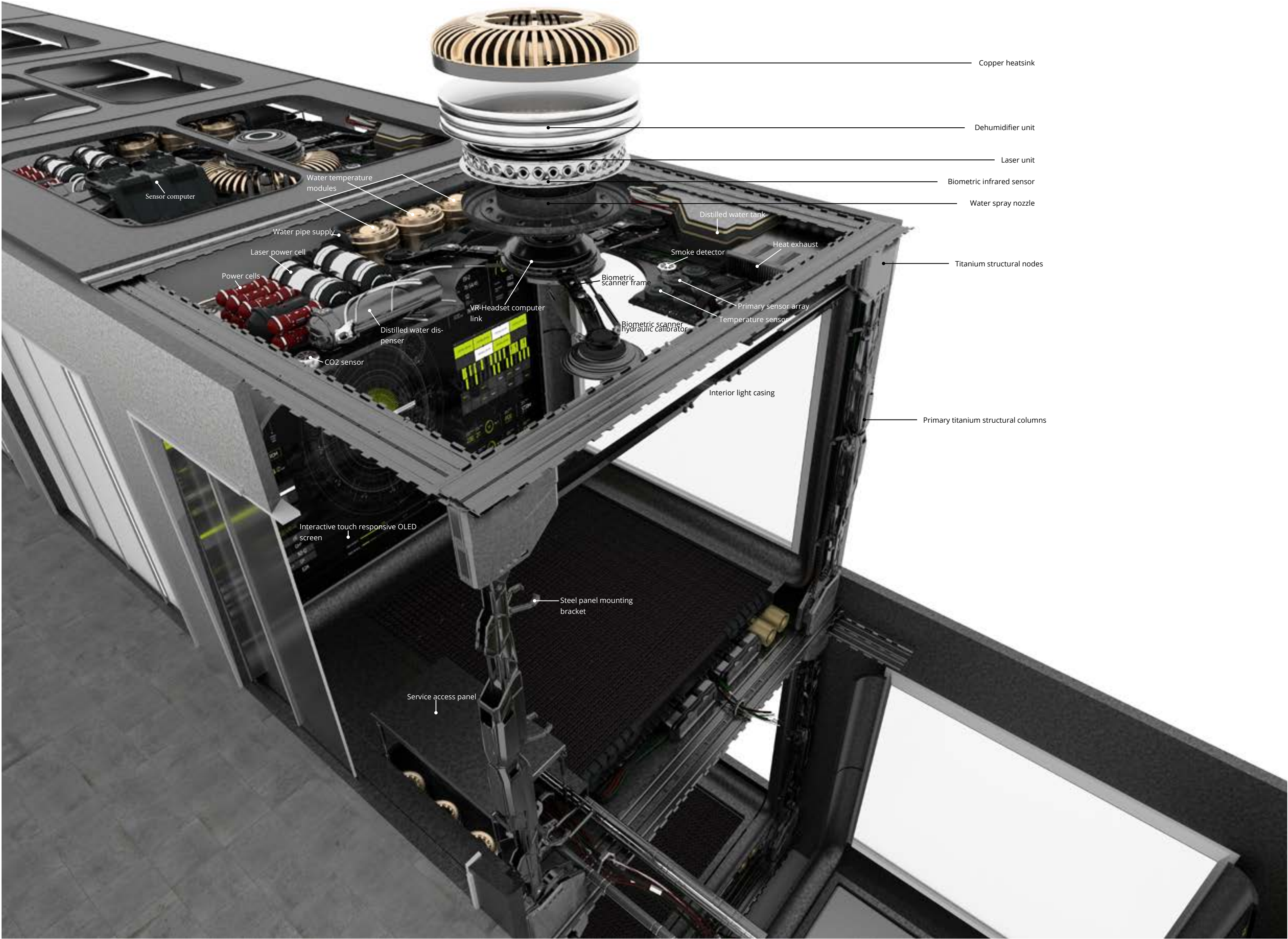
# VR BOOTH

## INTERIOR MECHANICS





VR BOOTH  
EXPLODED PERSPECTIVE





# 360° BIOMETRIC SCAN SCENE

PRE AND POST PRODUCTION





# 360° BIOMETRIC SCAN SCENE

360 DEGREE PAN | MAKING OF



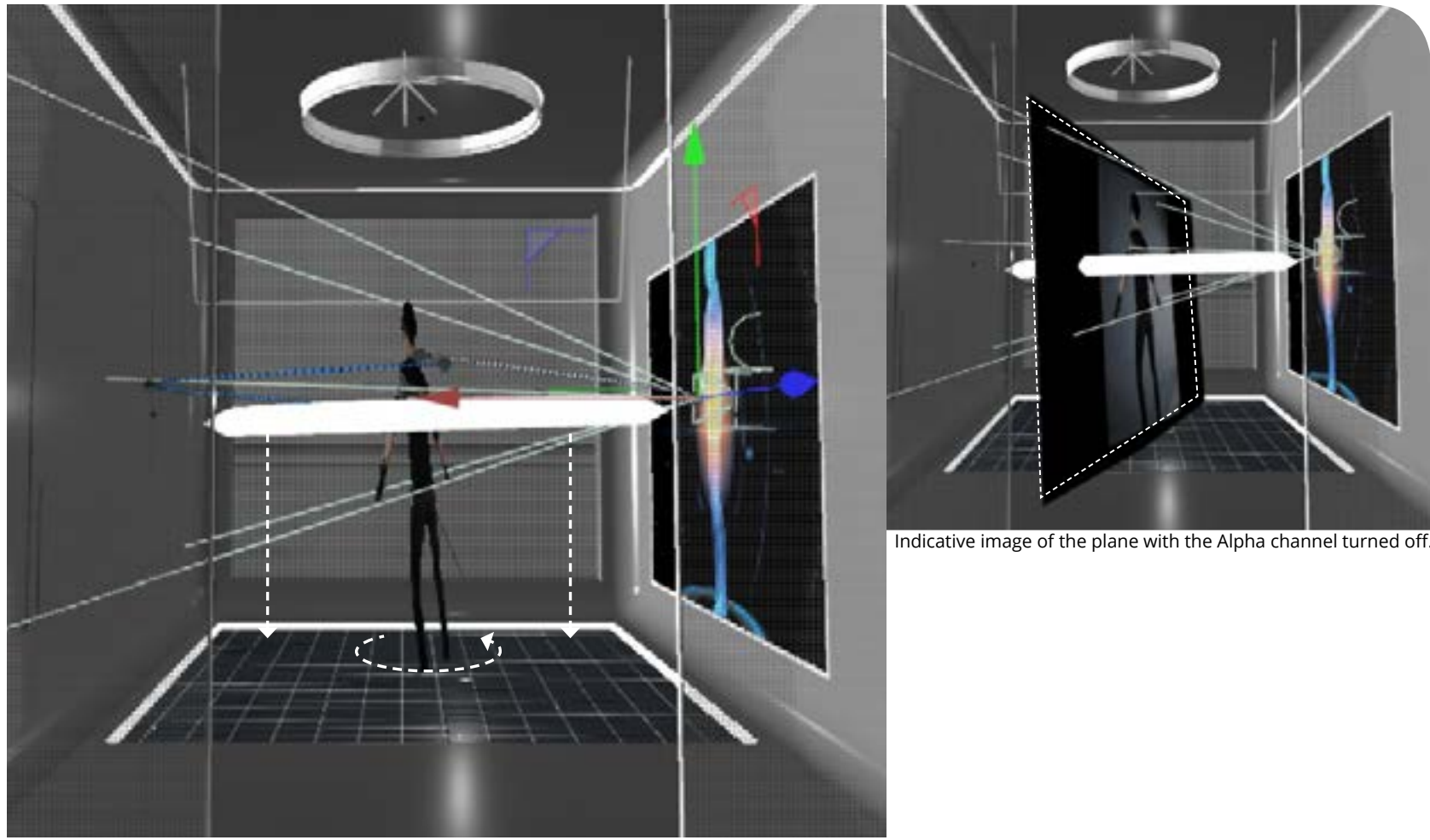
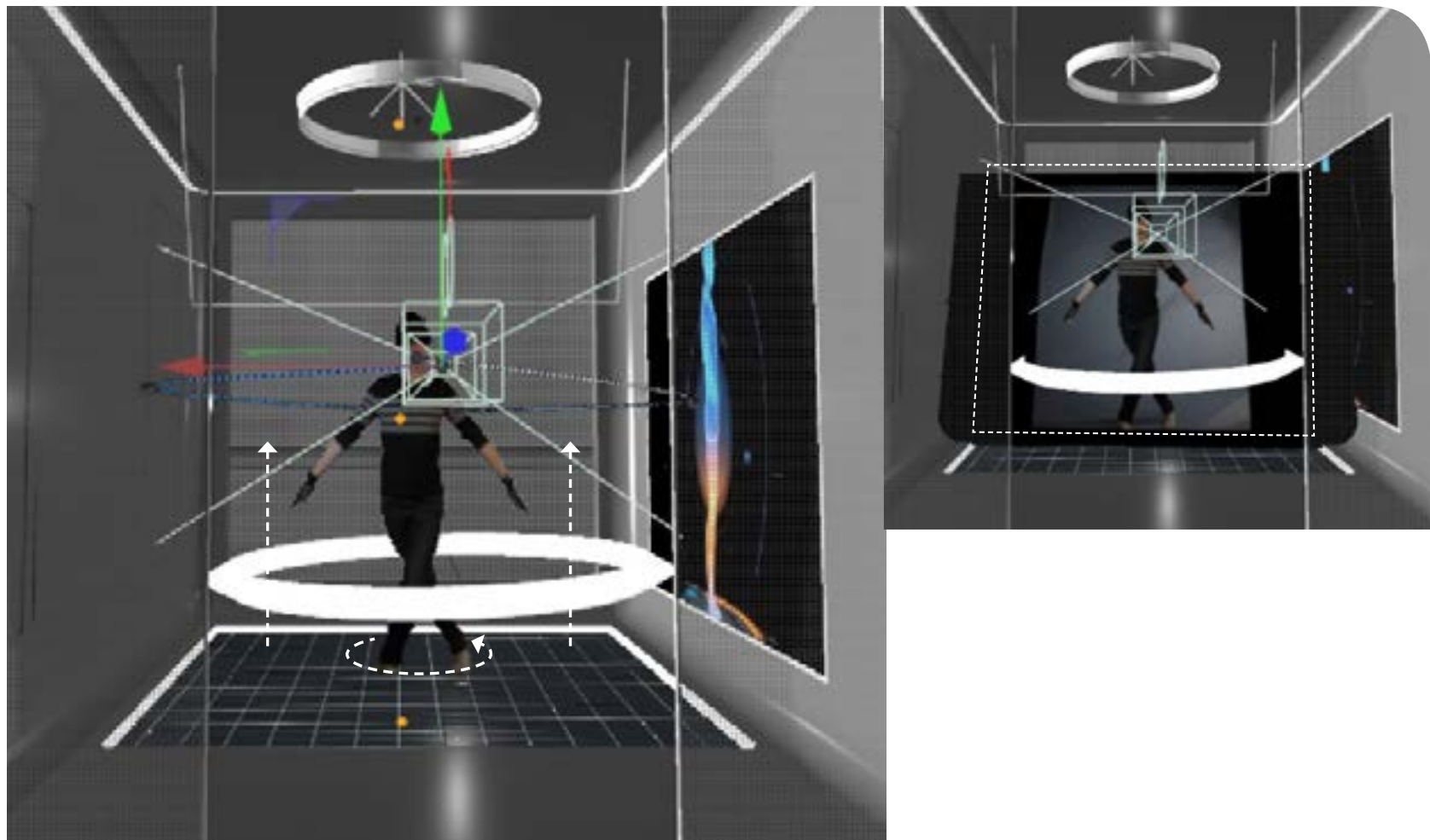
Blue screened footage composited into 3D environment.

To achieve a 360 degree pan shot of a keyed subject, one would require a chroma key background surrounding the subject. However, being limited to a blue screen on one side I had to find a new way of capturing every angle of the subject. I therefore kept the camera still and asked the subject to slowly rotate 360 degrees. I then imported the keyed footage in a 3D software and composited it with the 3D modelled environment.



# 360° BIOMETRIC SCAN SCENE

3D COMPOSITING



Indicative image of the plane with the Alpha channel turned off.

- Camera pans 360 degrees around keyed subject.
- Image on the plane is an image of the subject rotating in the opposite direction from the camera.
- The movement is cancelled out and the illusion of a still person is achieved.

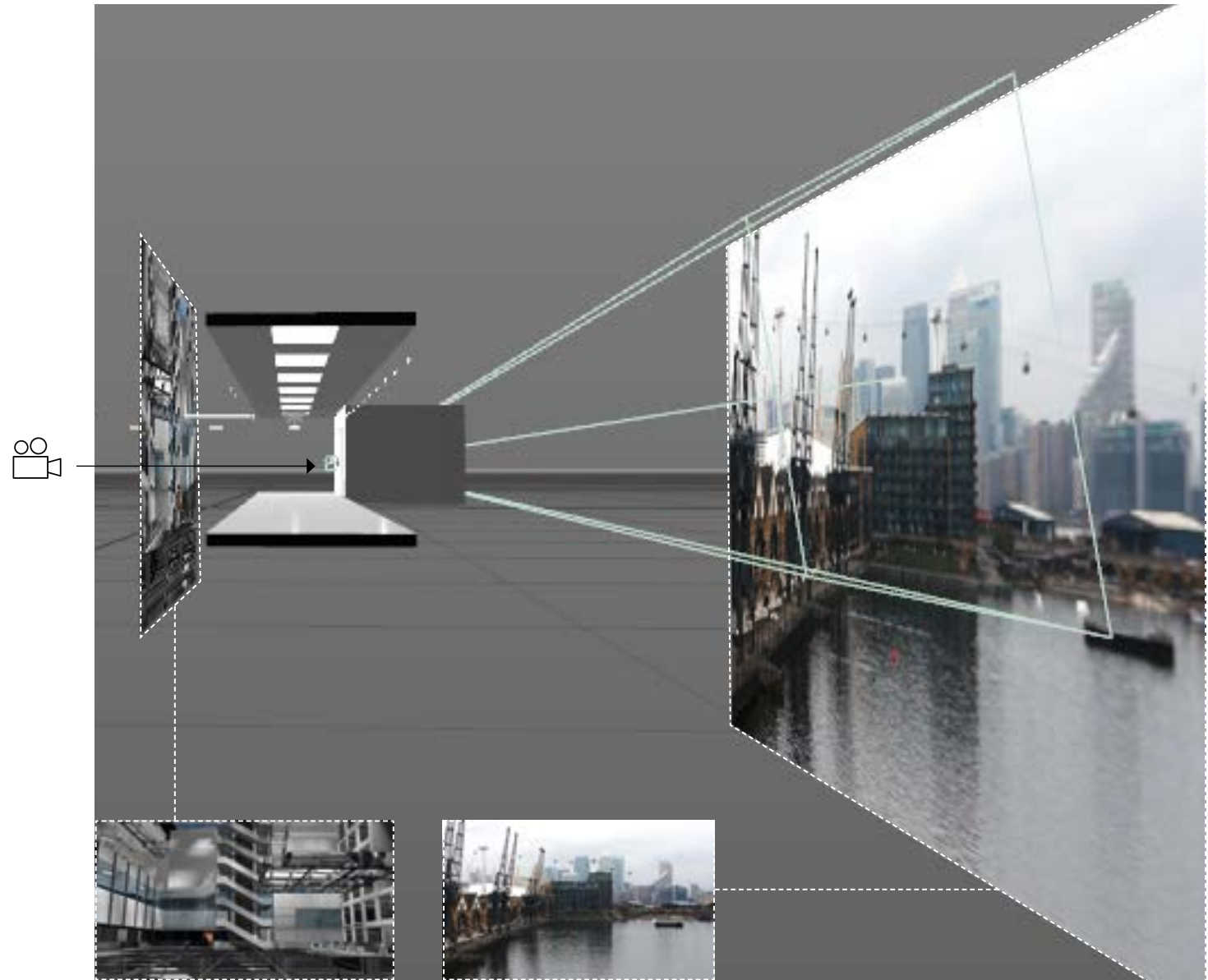


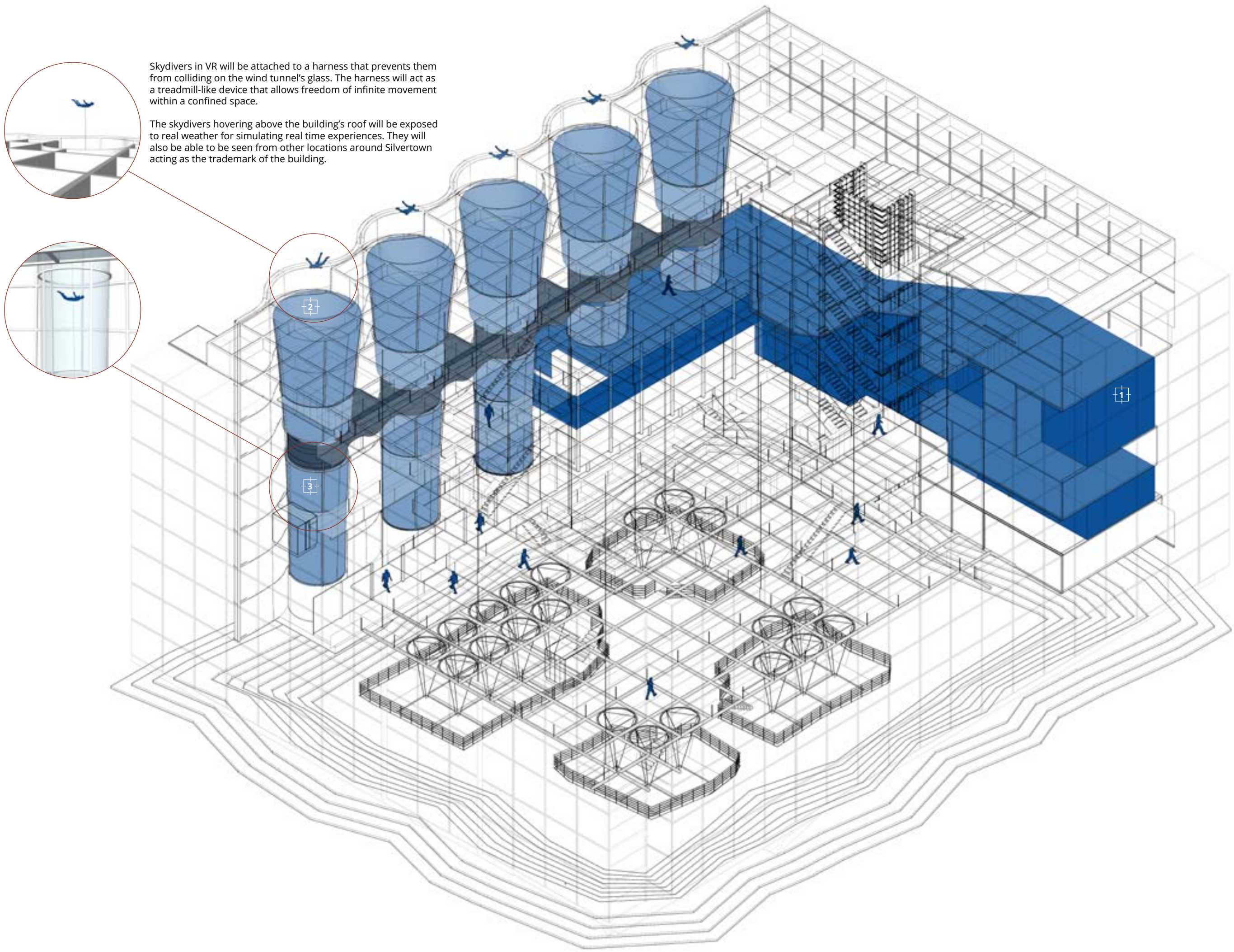
Image of building interior.

Video of exterior (Silvertown dock)



# VR SKYDIVING WINDTUNNELS AND VR SCUBADIVING TANKS

## ISOMETRIC VIEW OF BUILDING AND PRECEDENTS



AquaDom, the world's largest freestanding aquarium. Radisson Blu Hotel, Berlin



Shaolin Flying Monks Temple, Mailtis Architects, central China



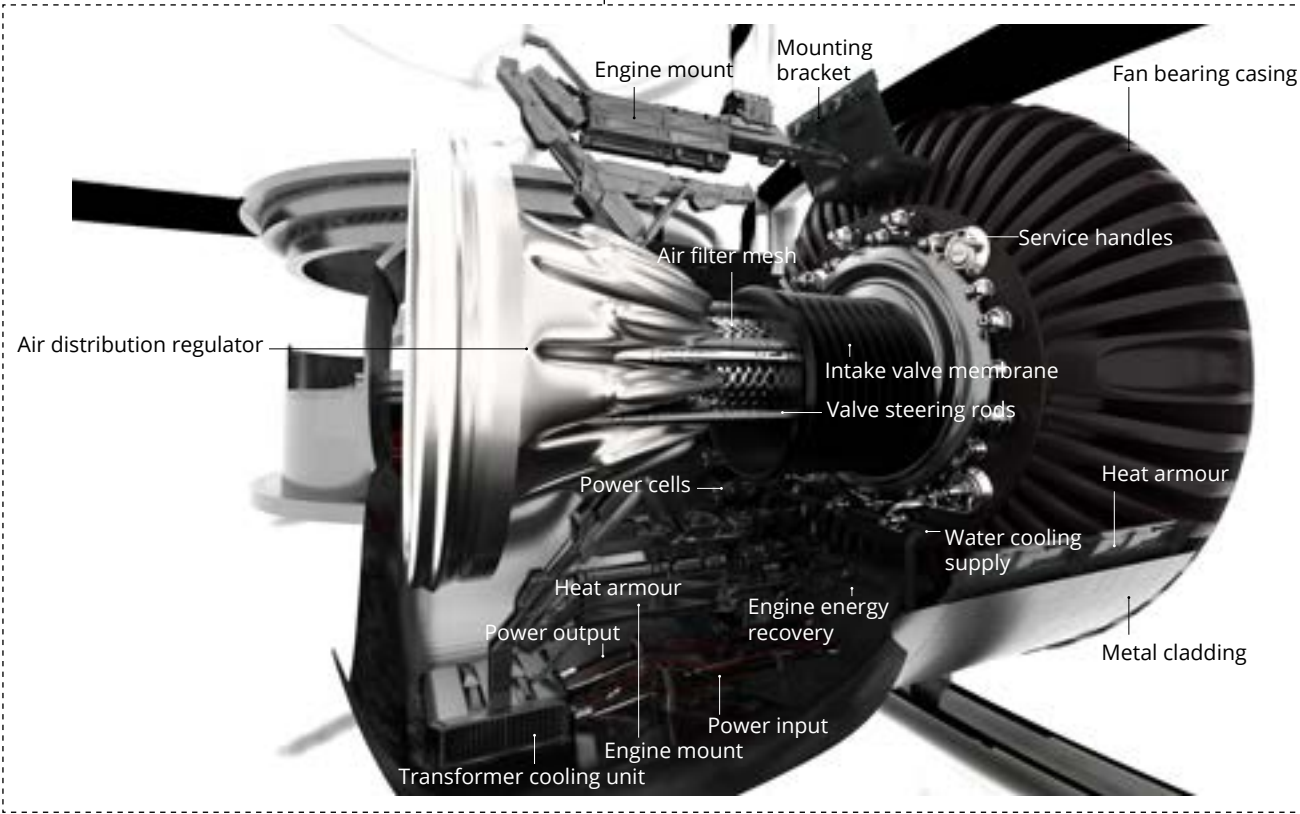
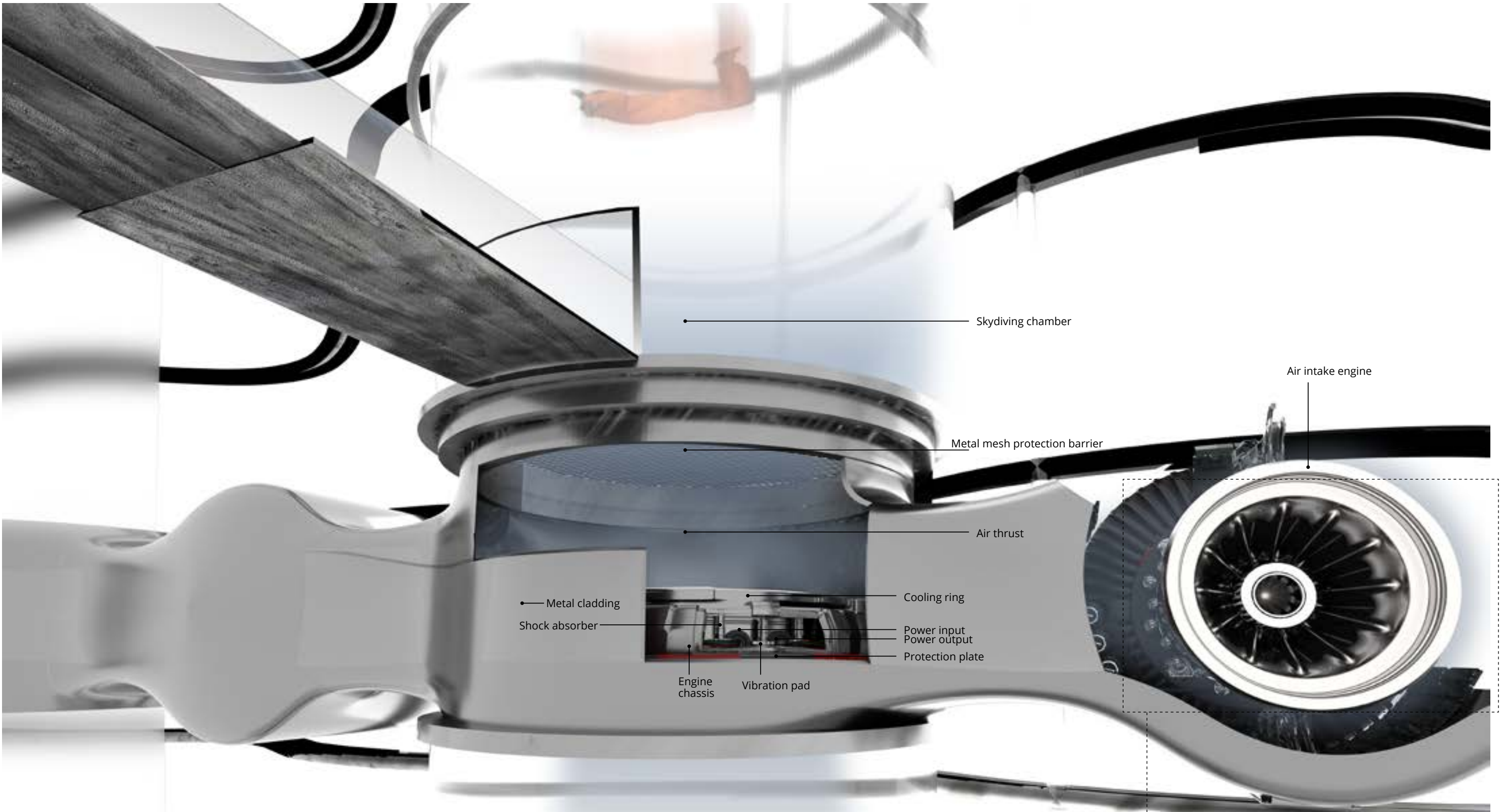
VR Skydive 4D, Twinwoods Adventure

The wind tunnels and water tanks will allow the visitors to experience free falling and flying sensations as well as under water virtual environments.



# VR SKYDIVING WINDTUNNELS

MACHINE MECHANICS





VR SKYDIVER SCENE  
SCENE OBJECTIVE AND SET UP



SHOT EXPECTATION



SHOT SET UP

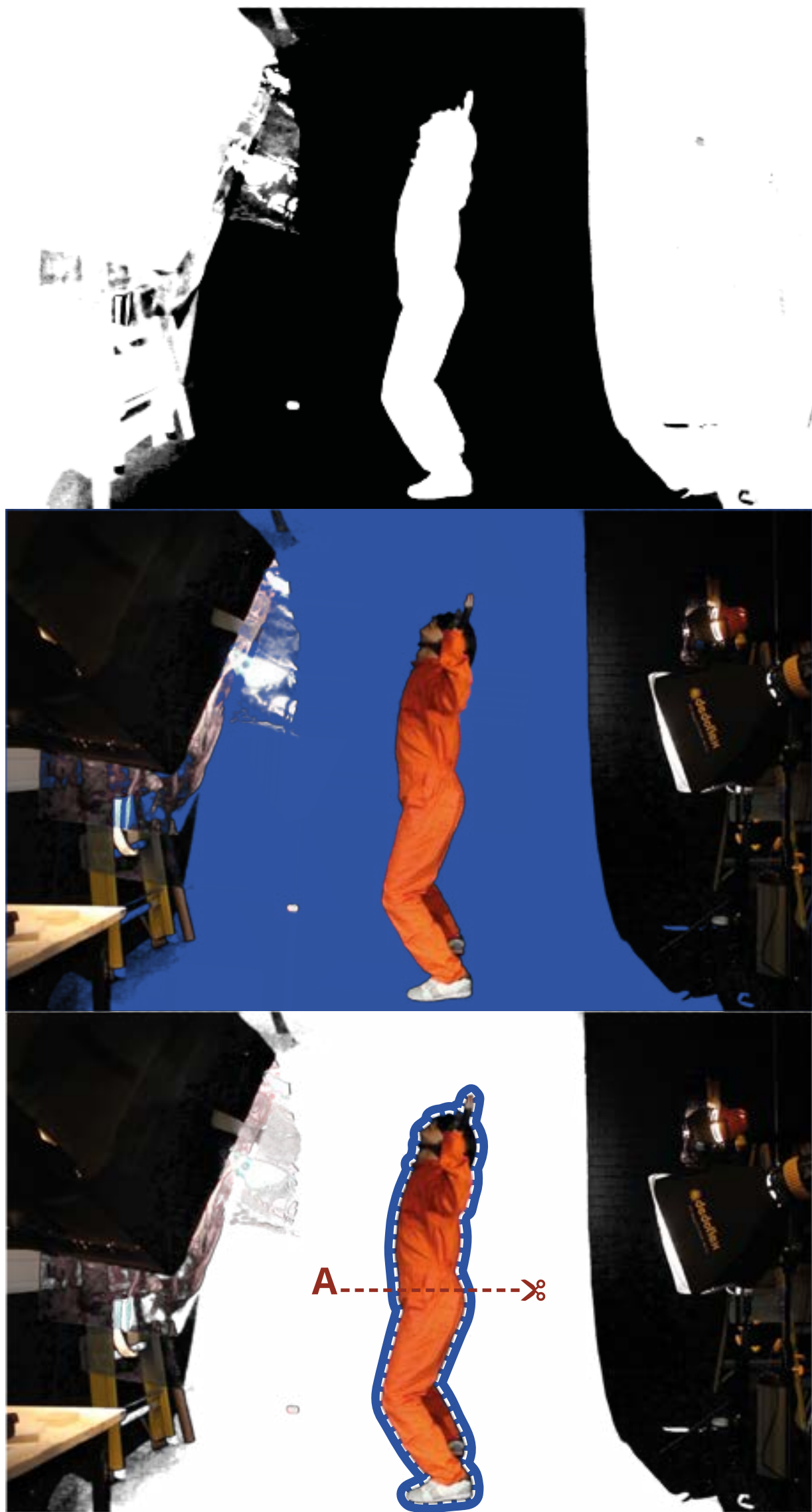


SUBJECT

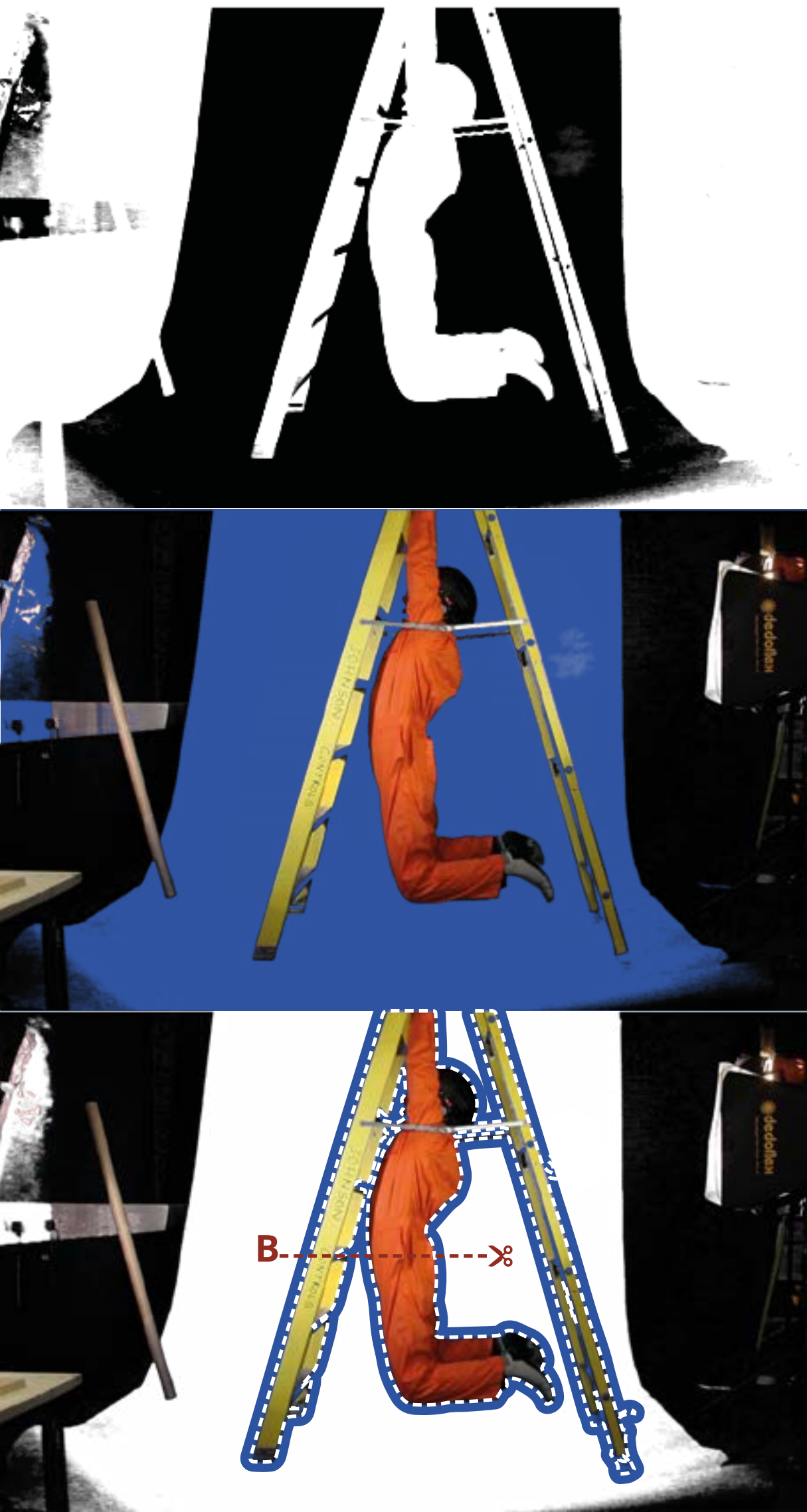
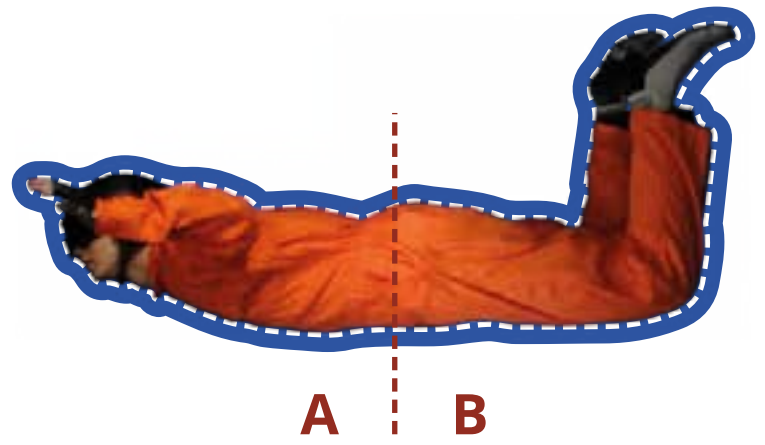
In the VR Skydiving Wind Tunnels, one will be able to experience flying or falling in a virtual environment. The way of achieving this is with the use of wind tunnels. The images on the left are precedents of simulated skydiving in wind tunnels.



VR SKYDIVER SCENE  
POST PRODUCTION



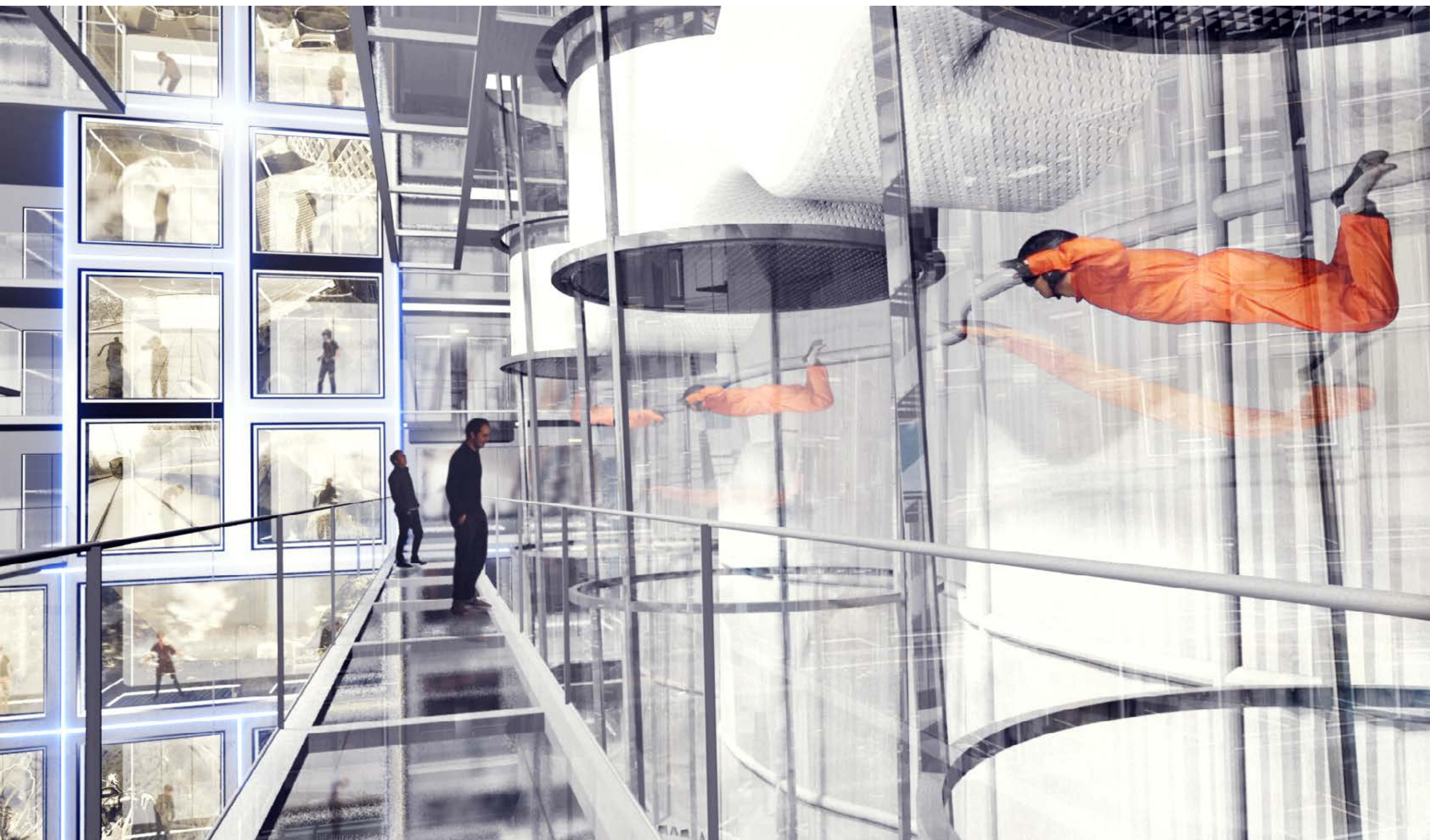
Upper Body Shot



Lower Body Shot

The production of this scene required the use of props in order to achieve the effect of weightlessness. To simulate the effect of a person in mid air, no part of the body should be in contact with the ground. I therefore created two separate shots, one for the upper body and one for the lower body, which I then stitched together in post-production.

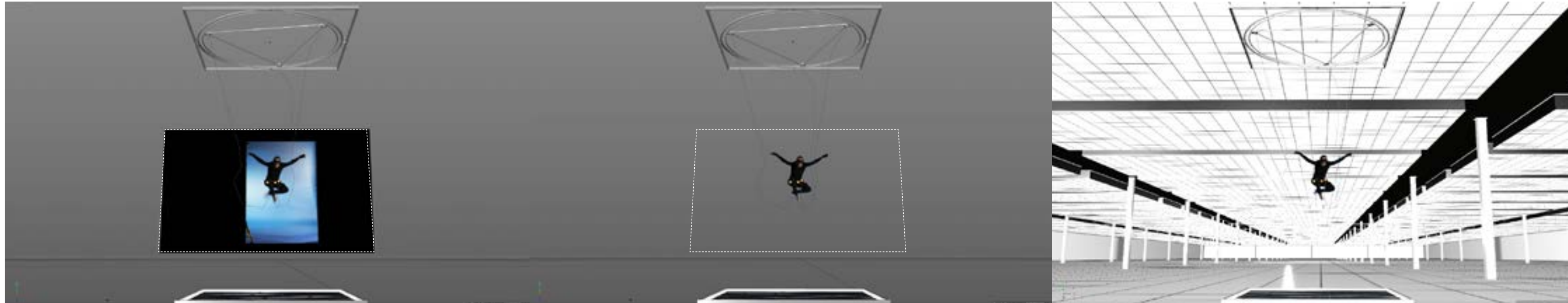






# VR ARENA

## CHARACTER RIGGING AND 3D COMPOSITING



Characters are keyed footage applied on flat surfaces. The surfaces have to be manually moved for the person to extend outside the boundaries of the surface.



Character rigging: Nodes are connected onto the keyed people around the waste line, which are connected with a curve to three nodes on the above rigging system. The wires remain connected to the characters and the rigging system as they move.







# HUMAN FACADE

INSPIRATION AND PRECEDENTS



Starring **James Stewart** **Grace Kelly** **Wendell Corey**  
Co-starring **Thelma Ritter** **Raymond Burr**  
Written by **John Michael Hayes**  
DIRECTED by **Alfred Hitchcock**



Alfred Hitchcock's "Rear Window".



In "Rear Window", a professional photographer is confined to a wheelchair, after breaking his leg in an accident, in his Greenwich Village apartment to recuperate. His rear window looks out onto a courtyard and several other apartments. During a powerful heat wave, he watches his neighbours, who keep their windows open to stay cool.



Scene from the musical theatre "Chicago"



Amsterdam's Red Light District

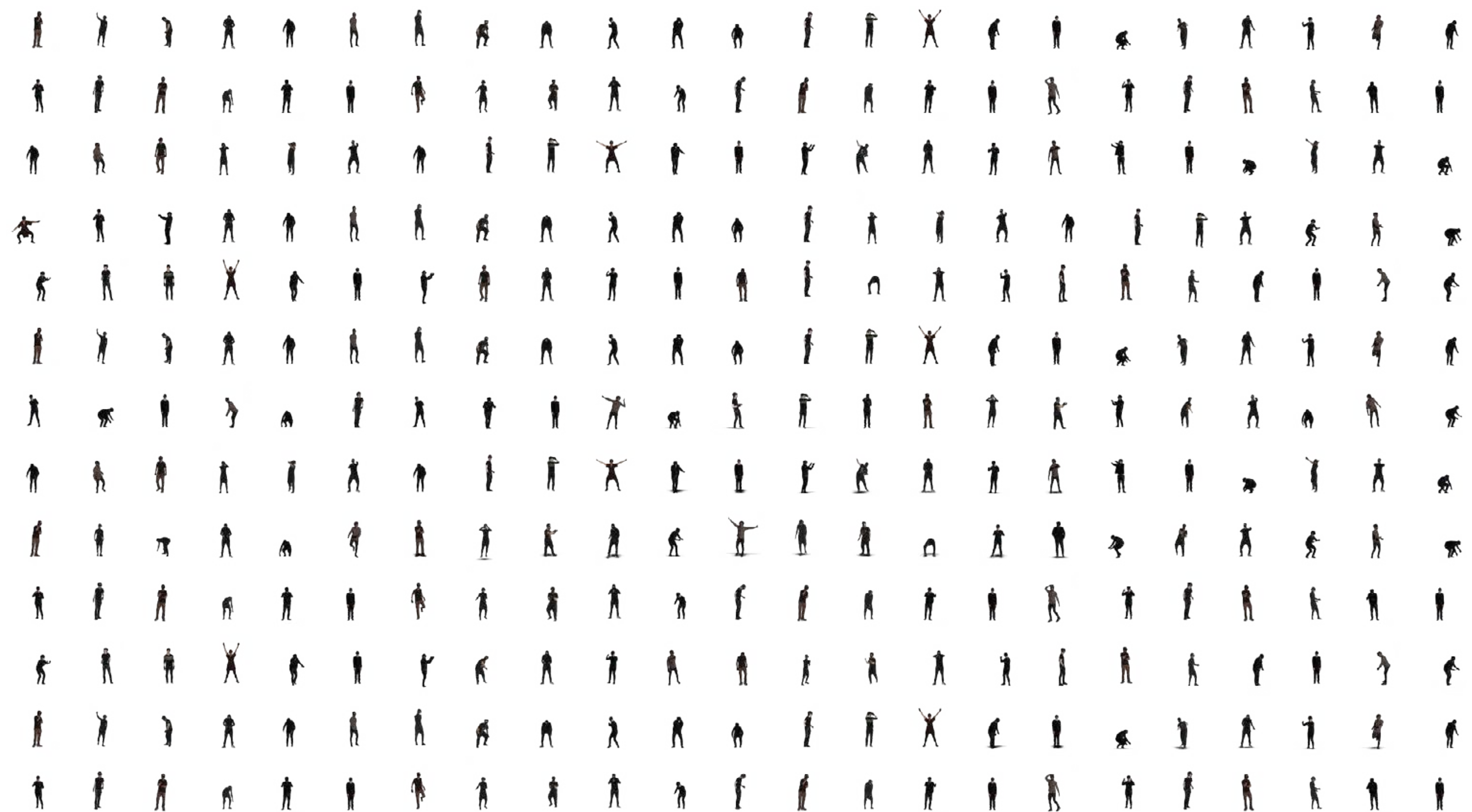
In the musical "Chicago" and in Amsterdam's Red Light District, women perform in front of windows to catch the attention of by passers and visitors.

The users of the VR booths will create a performance of movement on the facade of the building which will be seen from by passers as well as from the internal atrium.



# HUMAN FACADE

KEYED OUT CHARACTERS FOR VR BOOTHS AND ANIMATED FACADE



All the chroma key footage was edited in post production and separated from the filmed background. Each person will occupy a virtual reality booth, in which the navigation space will be limited to no more than a 2m radius, depending on the booth typology. The booths will be arranged in a grid formation, like facade modules that consist of people in movement.



