

Unity in Diversity

Collective Curatorial Project

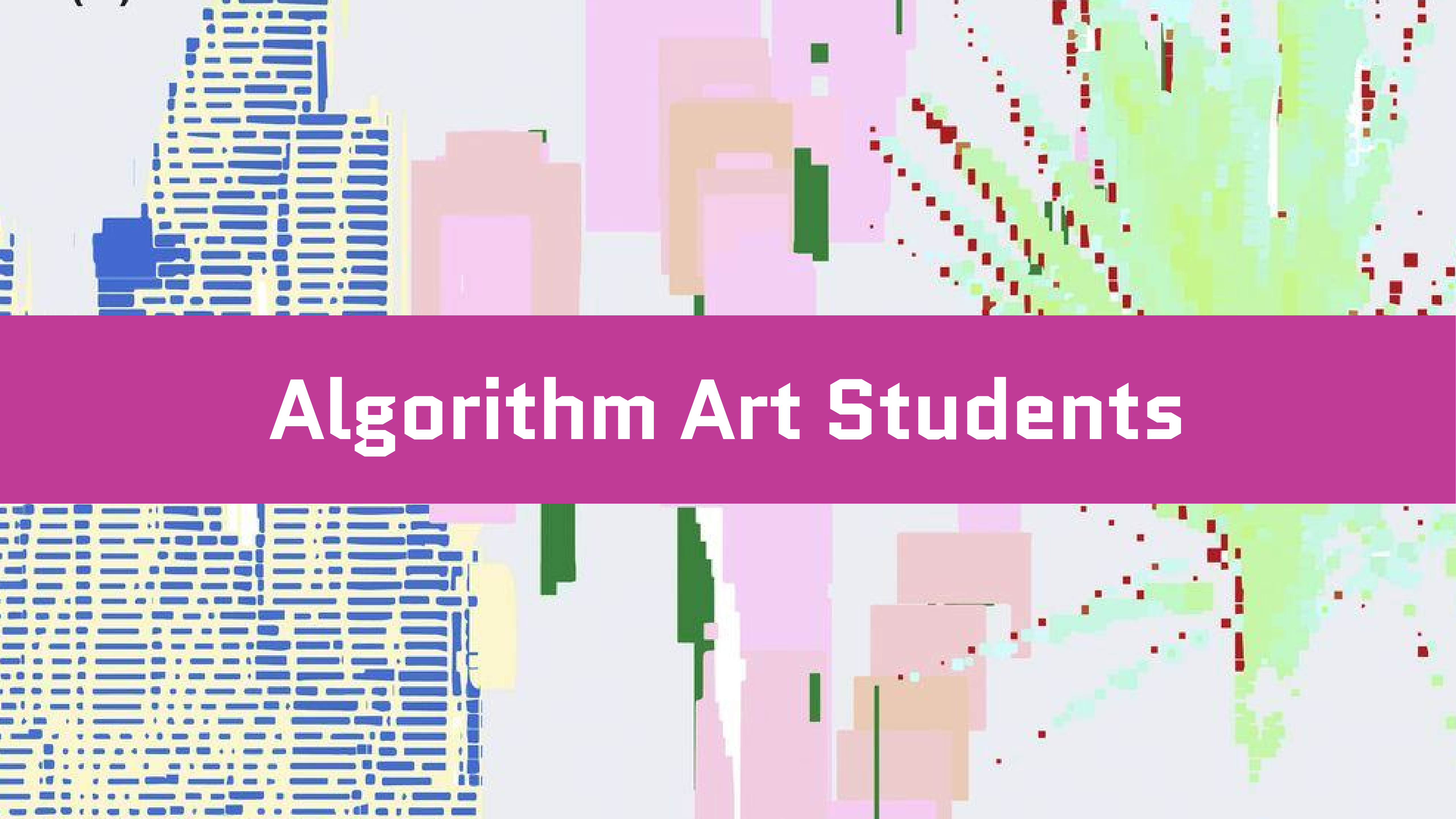
Unity in Diversity is a collective curatorial project bringing together the work of international and migrant students based in Berlin, Germany. The project was developed within the courses Experiments in Algorithmic Art and Creative Coding at the University of Europe for Applied Sciences during the Summer Semester 2026, under the guidance of lecturer and curator Sara Luna Ruiz Montoya. Through these courses, students explored how algorithmic and computational processes can operate as methods for reflection, translation, and artistic experimentation. The resulting works engage with cultural, social, environmental, and technological perspectives through contemporary practices in digital art and design.

Data visualization occupies a central role within this process. The works explore how the collection, selection, organization, and translation of information can become a form of critical commentary, making visible dynamics of power, inequality, access, and representation. Data becomes an artistic material capable of revealing social, cultural, environmental, and political relationships that are often hidden, abstracted, or reduced to numbers within conventional ways of accessing, representing, and interpreting information.

Collectively, the projects reveal different ways of interpreting contemporary issues through distinct geographies, memories, contexts, and perspectives, using digital art as a space for critical reflection shaped by situated viewpoints, diverse cultural experiences, and processes of critical experimentation.

Lecturer: Sara Luna Ruiz

Published in collaboration with *fluctuating images*.

The background is a vibrant, abstract digital artwork. On the left, a stylized city skyline is depicted with blue and yellow horizontal lines representing buildings. To the right, a large, green, pixelated tree stands against a light blue sky. The entire scene is composed of various geometric shapes and colors, including pinks, purples, and greens, creating a modern, digital aesthetic.

Algorithm Art Students

Access Denied, A Game of Equal Opportunity

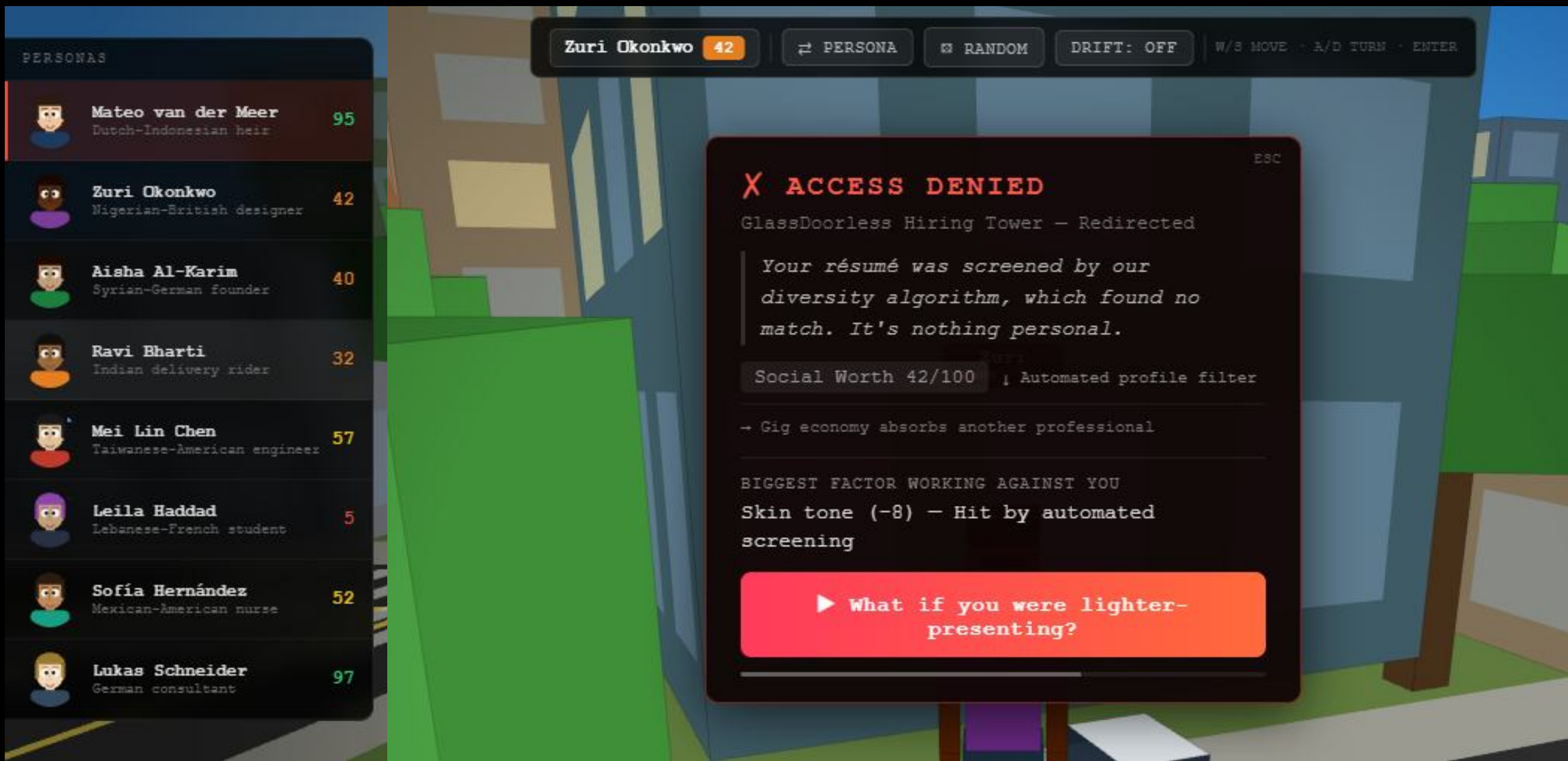
By Aayushmaan Jain

Access Denied is a game that explores how social biases, increasingly embedded in AI-mediated access systems, can reproduce and amplify inequalities even when these systems are presented as neutral mechanisms of evaluation. Based on variables such as race, gender, socioeconomic status, and disability, the project examines disparities across areas such as employment, credit, healthcare, education, and justice.

The game takes place in a fictional city called Meritopia, where the user can switch identities and face different challenges and opportunities depending on the pre-existing conditions of their avatar. The same action like applying for a job, accessing an institution, or trying to enter through a door, can produce different outcomes depending on the profile assigned to the character.

Through satire and game dynamics, the work shifts the discussion of algorithmic bias from abstract data into a direct experience, asking what equality means when the invisible rules of a system do not affect everyone in the same way.

[Link to Prototype](#)





[Link to Prototype](#)

The History of the Swahili Language Visualized as Architecture

By Esther Njeri Njenga

This work draws on data from approximately 1,200 years of Swahili language history and transforms it into an evolving architectural landscape. Bantu, Arab, Persian, Indian, Portuguese, German, and British influences appear progressively through new architectural forms, shared words, and transformations of the visual environment. Rather than replacing one another, these influences accumulate over time, reflecting a language shaped through centuries of trade, religion, migration, administration, and colonialism.

The project emerges from the artist's personal experience with the stigmatization of Swahili during her education in Kenya. The piece presents cultural identity as a historical, generative, hybrid, and cumulative construction, and reflects on how the displacement or suppression of language can operate as a colonial tool, affecting not only identity and communication but also leaving physical and visual traces across territories, transforming architecture and visual culture, and shaping the way people live, perceive, and relate to their original cultures and worldviews through these marks in the built environment.

[Link to Prototype](#)



PERSIA
FOOD AND CELEBRATIONS

Swahili	Persian	Match	Meaning
chai	چای	IDENTICAL	tea
ghani	گهانی	Near identical	spiced rice dish
ananas	اناناس	Very close	pineapple
thangwe	تنگه	Partial	joy / celebration



INDIA
TRADE AND SAILING

Swahili	Gujarati / Hindi	Match	Meaning
chai	चाय	IDENTICAL	tea
pasa	पासा	Very close	money
dika	दिका	Near identical	shop
daba	दाबा	Very close	bin container
hoo	हू	Near identical	boat/gun
sukari	सुकरि	Recognizable	sugar
tangawizi	तंगवि	Recognizable	gangster
dawa	दावा	Near identical	sailing vessel



ARABIA
TRADE AND FAITH

Swahili	Arabic	Match	Meaning
chai	چای	Near identical	tea
ghani	گهانی	Near identical	spiced rice dish
ananas	اناناس	Very close	pineapple
thangwe	تنگه	Near identical	joy / celebration
hoo	هू	Near identical	boat/gun
sukari	سुकरی	Very close	sugar
tangawizi	تنگوی	Near identical	gangster
dawa	داوا	Near identical	sailing vessel
ghani	گهانی	Near identical	spiced rice dish
ananas	اناناس	Very close	pineapple
thangwe	تنگه	Partial	joy / celebration



[Link to Prototype](#)

Walkable Trash

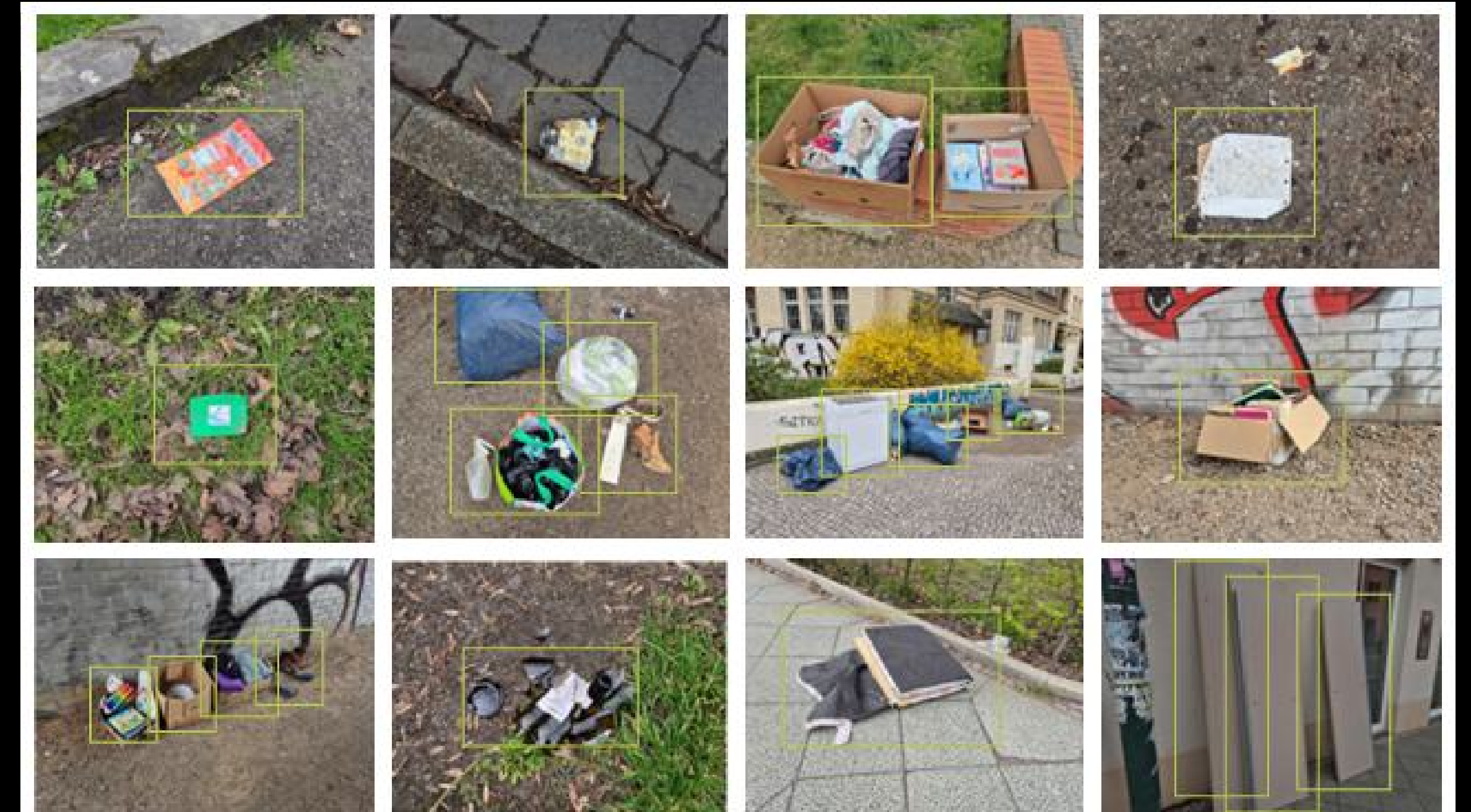
By: Gaia Dimase Petiti

Walkable Trash is a work that uses as its data source the objects that people leave on the streets of Berlin to be given away, a very common practice known as **zu verschenken**. Based on an everyday observation during her route from home to university, Gaia records for seven days the objects she finds household supplies, clothing, waste, and food packaging and organizes them into specific categories.

The project documents how long these objects remain in public space, which ones disappear, which are new, and how this sharing dynamic transforms the urban landscape on a daily basis. The collected information is organized into a navigable visualization that makes these changes visible over time.

The project later evolves into a digital proposal that incorporates object detection and suggests a platform where people can register, share, and recover objects left on the street. Within Unity in Diversity, the work observes how cultural practices such as zu verschenken, consumption, waste, and informal economies of reuse form part of the everyday identity of the city.

[Link to Prototype](#)



WALKABLE TRASH

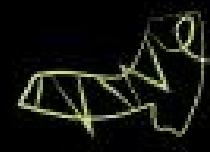
This website's goal is to create a stronger community that takes care of city's streets, by joining people together and cleaning the streets at the same time.

'Zu verschenken' is a well know German practice that invites people to freely take whatever is left on the curbs, and this website is promoting it. How does it work?

1. Once inside the site, click on 'Add Adv' if you want to share the object you have found on the curbs, or that you are leaving right now, for other people to collect. In this way users know what they could take and where to find it.
2. If you are looking for something to take, instead, just select a city from the map and start looking at all the objects around the city that might interest you. Each of them is classified based of what they are:



Garbage



Clothes



House Supplies



Food Packaging

3. Once you take something from the curb please modify the Adv, in order for other people to know that the items are no longer available!

ADD ADV

[Link to Prototype](#)



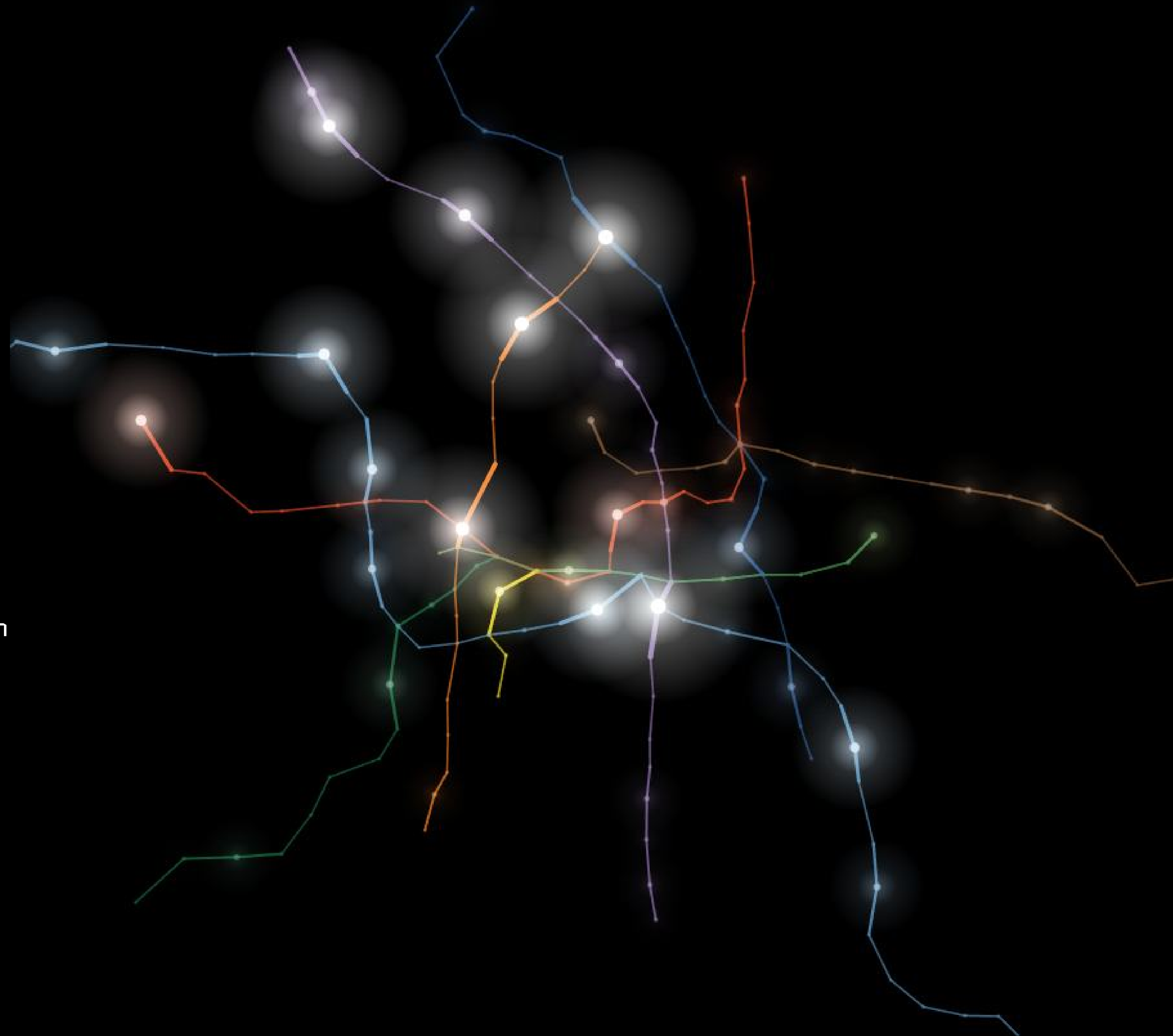
Berlin U-Bahn, Data as Sound & Light

By Marco Arturo Osorio Alonso

This work transforms real-time arrival data from Berlin's public transport system into an audiovisual piece, using the geographic positions of the stations to create a dynamic representation of the city's connections. Each train arrival activates a visual and audio signal, with different notes and instruments assigned to the different lines and positions along the route.

In this way, the visual and sound composition is generated by the conditions of the city itself in real time, using the city and its urban environment as a source of inspiration. Within Unity in Diversity, the work approaches Berlin through the multiple individual journeys that cross the city and overlap to create a unified collective rhythm, reflecting a living urban body shaped by diverse trajectories that coexist on a larger scale.

[Link to Prototype](#)



BERLIN U-BAHN

Previsualización generativa · Llegadas simuladas · datos reales (208 estaciones)

DECAIMIENTO

Tiempo de apagado (τ)4.0 s

SIMULACIÓN

Llegadas / segundo7.5

Brillo de líneas (reposo)30%

Resplandor (bloom)115%

II Pausa

Audio: OFF

LÍNEAS (CLIC PARA AISLAR)

U1

U2

U3

U4

U5

U6

U7

U8

U9

450

llegadas/min

74 estaciones activas

THE DATA SOURCE

1

BVG REST API
The official Berlin transport authority exposes real-time arrival data through a public REST endpoint , no authentication, no API key required. The service runs at `v6.bvg.transport.rest` and covers all U-Bahn, S-Bahn, and bus lines.

2

What we query
For each of the 9 U-Bahn lines we poll the departures endpoint every 30 seconds, receiving a timestamped list of the next trains per station , including line, direction, platform, and seconds until arrival.

3

Station data
A companion CSV maps all 208 stations across U1–U9 with their stop IDs, official box line colors, and real geographic coordinates, latitude and longitude, used for spatial mapping.

ENDPOINT	
v6.bvg.transport.rest	
Lines covered	U1 – U9
Stations	208
Polling interval	30 seconds
Authentication	None required
Data format	JSON

[Link to Prototype](#)

If the Forest Had a Body

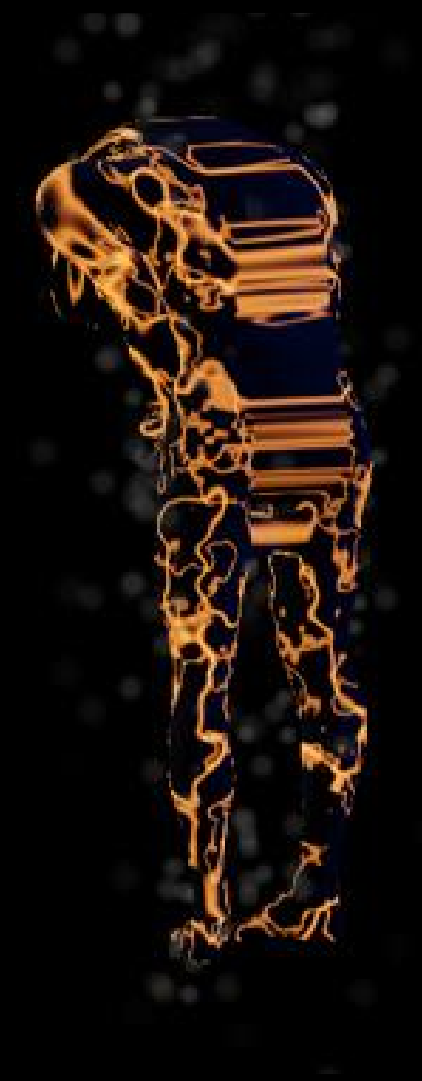
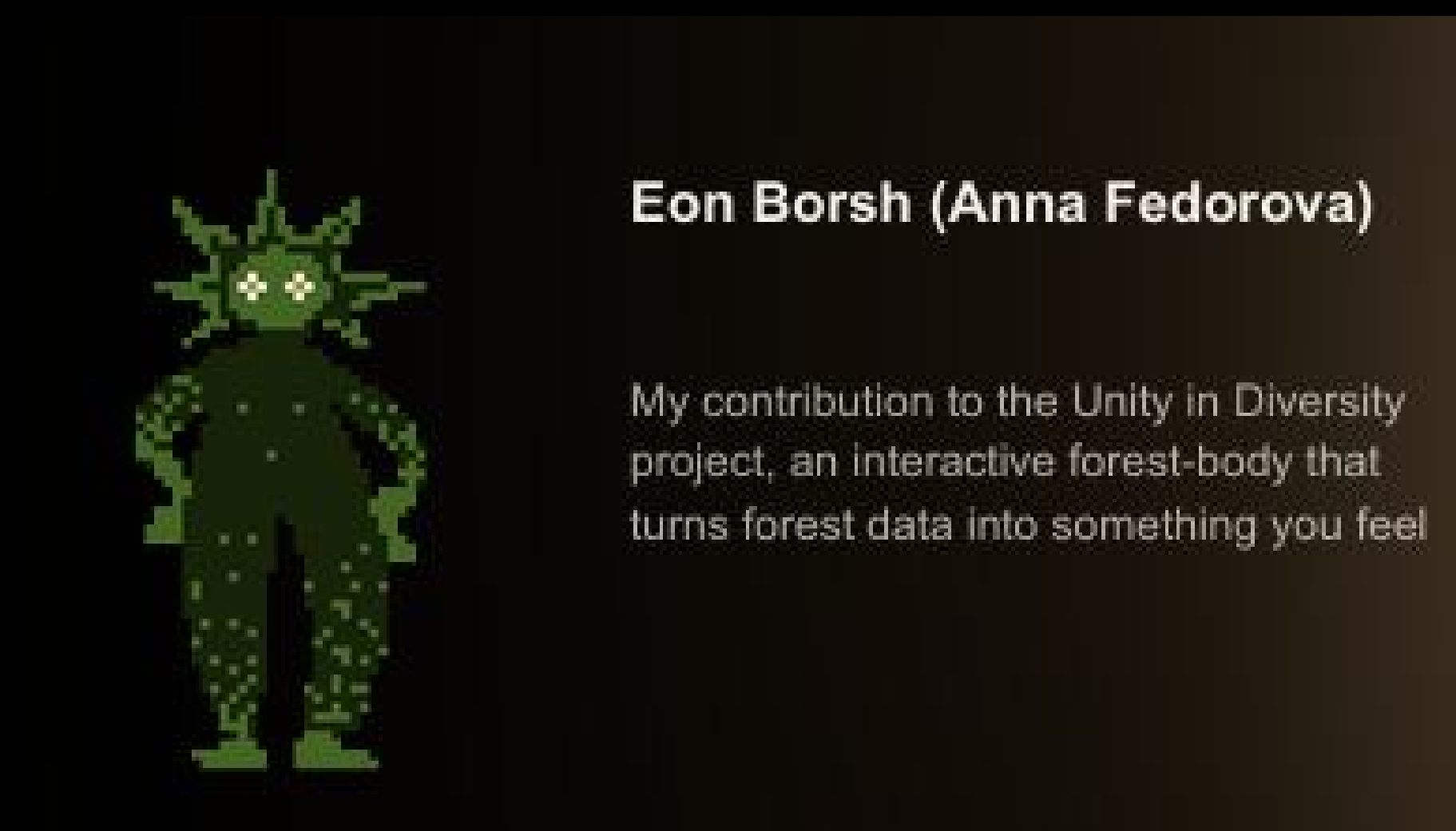
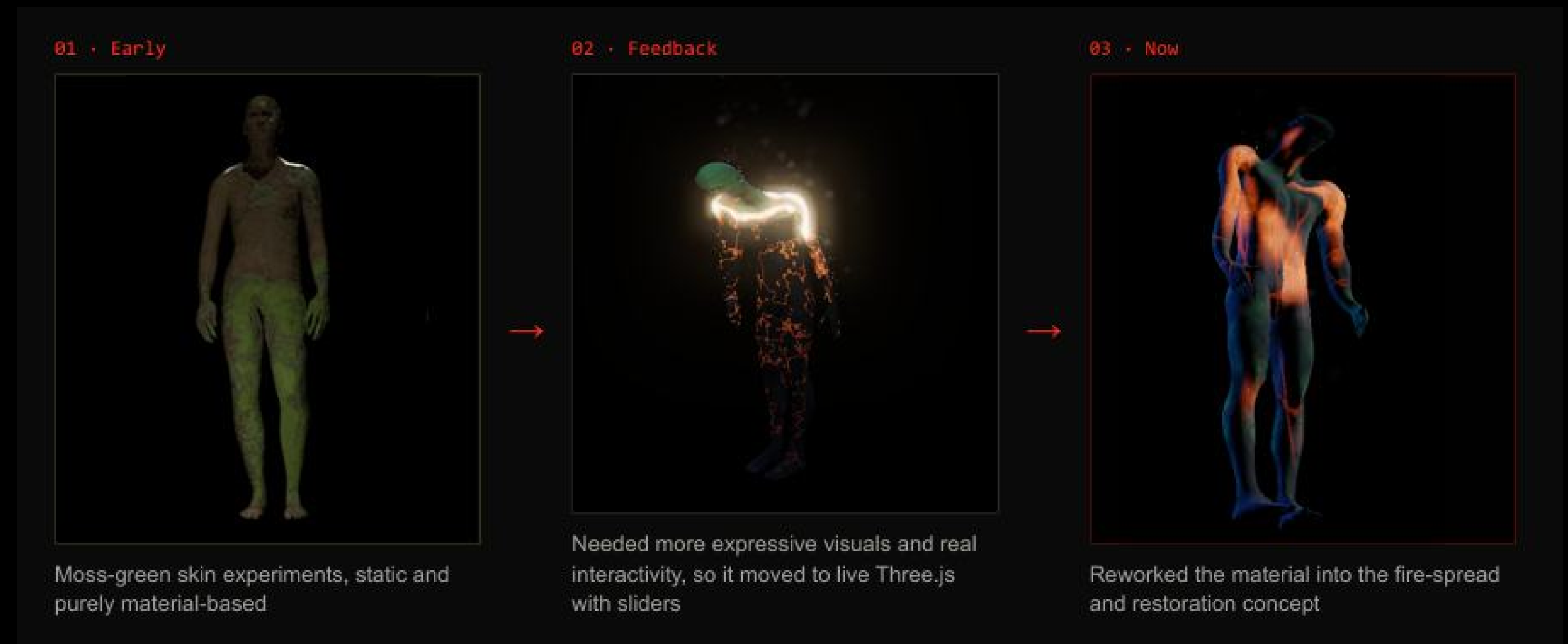
By Eon Borsh [Anna Fedorova]

If the Forest Had a Body transforms data on environmental degradation into an embodied and interactive experience. Using a human figure, the work translates the impact of environmental damage to a human scale, creating a more immediate emotional connection and reflecting on society's indifference toward the destruction of ecosystems.

The surface of the human body in the artwork is affected by three main forces: deforestation, climate stress, and restoration. As these variables change, the body becomes covered with scars, wounds, fire, particles, and burned areas; when restoration increases, vegetation returns and the body gradually recovers.

By translating hectares of environmental loss and ecological impact into visible signs on the human body, the piece aims to make visible what is usually presented as an abstract statistic, inviting the viewer to understand environmental damage as something directly connected to human life.

[Link to Prototype](#)



If the Forest *Had a Body*

YOU DECIDE ITS FATE — DECLINE OR RECOVERY, 2000–2050

DEFORESTATION PRESSURE21%

CLIMATE STRESS40%

RESTORATION12%

TIMELINE2025

COLLAPSING

▶ PLAY PROJECTION

BUSINESS AS USUAL

TURNING POINT

REGENERATION

RESET

ISOLATE CAUSE

ALL

CUT

BURN

LESION



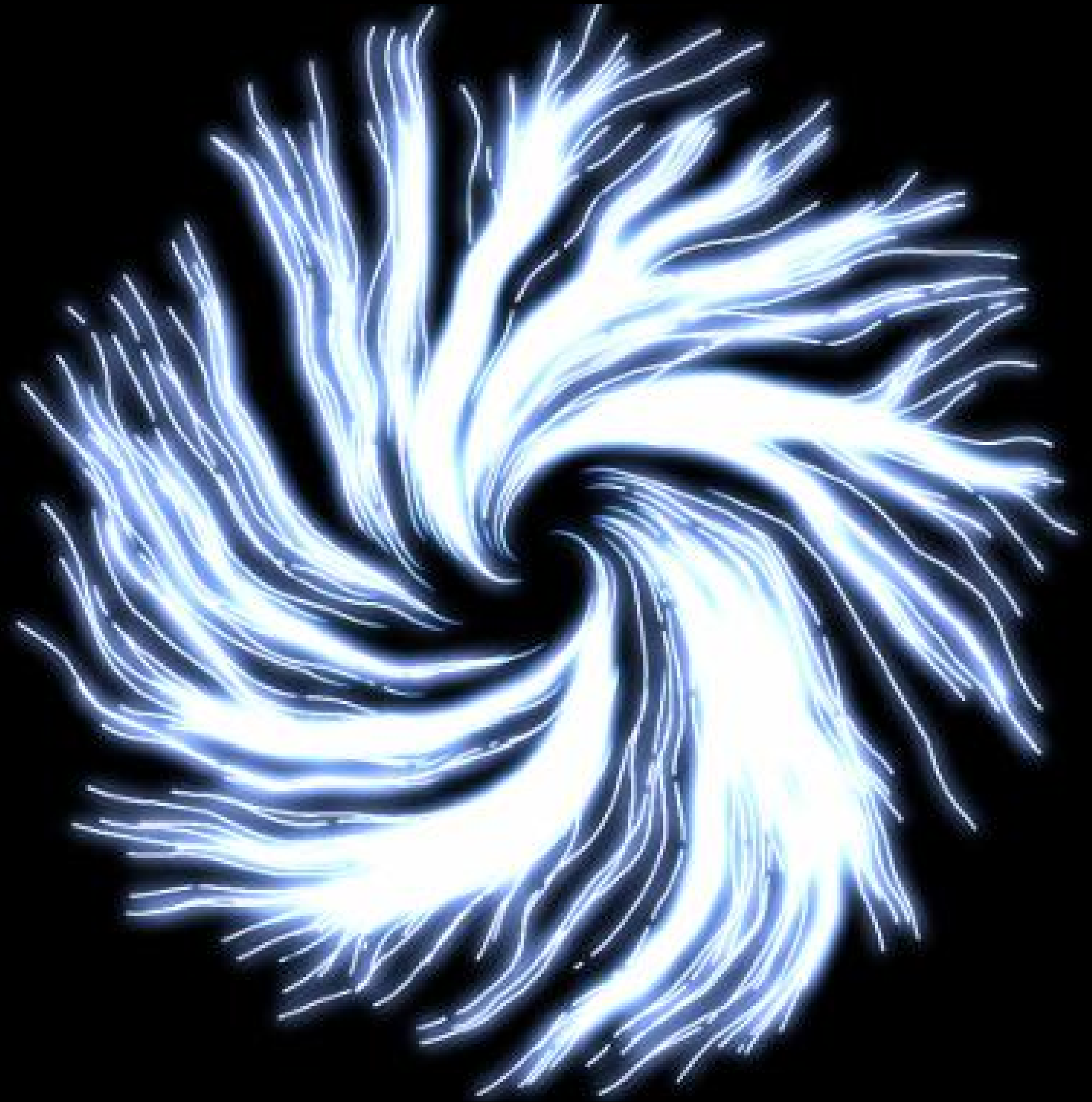
[Link to Prototype](#)

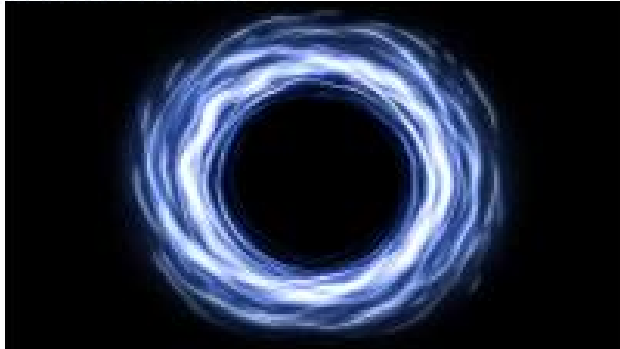
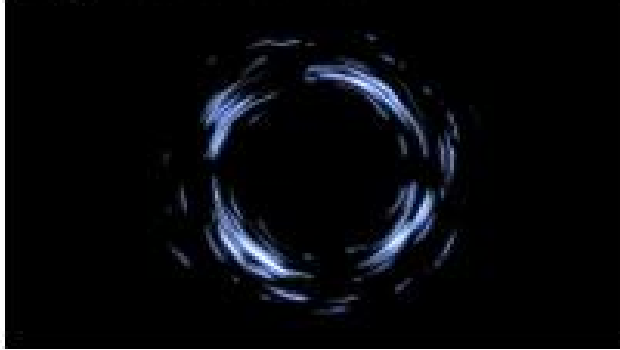
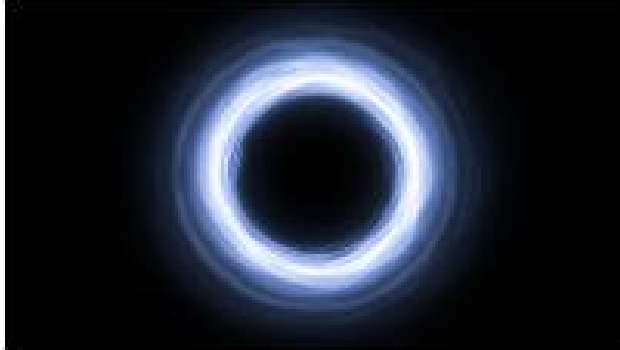
Three Watch Back Machines

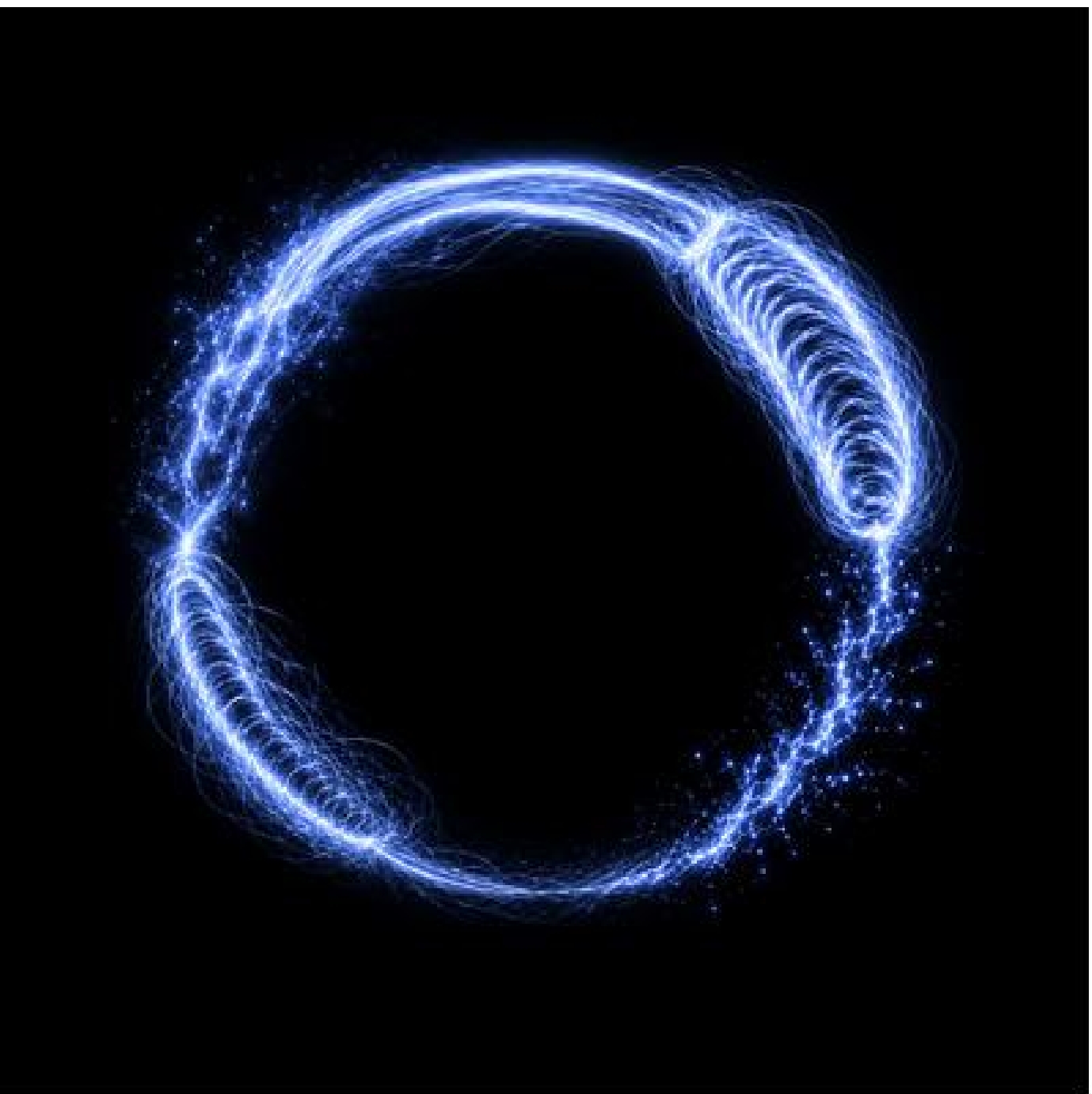
By Eduardo Efraín

Mind Matter turns signals from the body into a live generative visualization. Using the camera, the system reads variables related to stress, focus, memory, and rest, and translates them into a moving spiral made of light particles. As these values change, they affect the shape of the visualization: the speed, density, glow, movement, and openness of the spiral respond to the participant's state. At the end of the reading, the spiral slowly transforms into a final circular image connected to one of several possible visual outcomes, accompanied by a short written reflection.

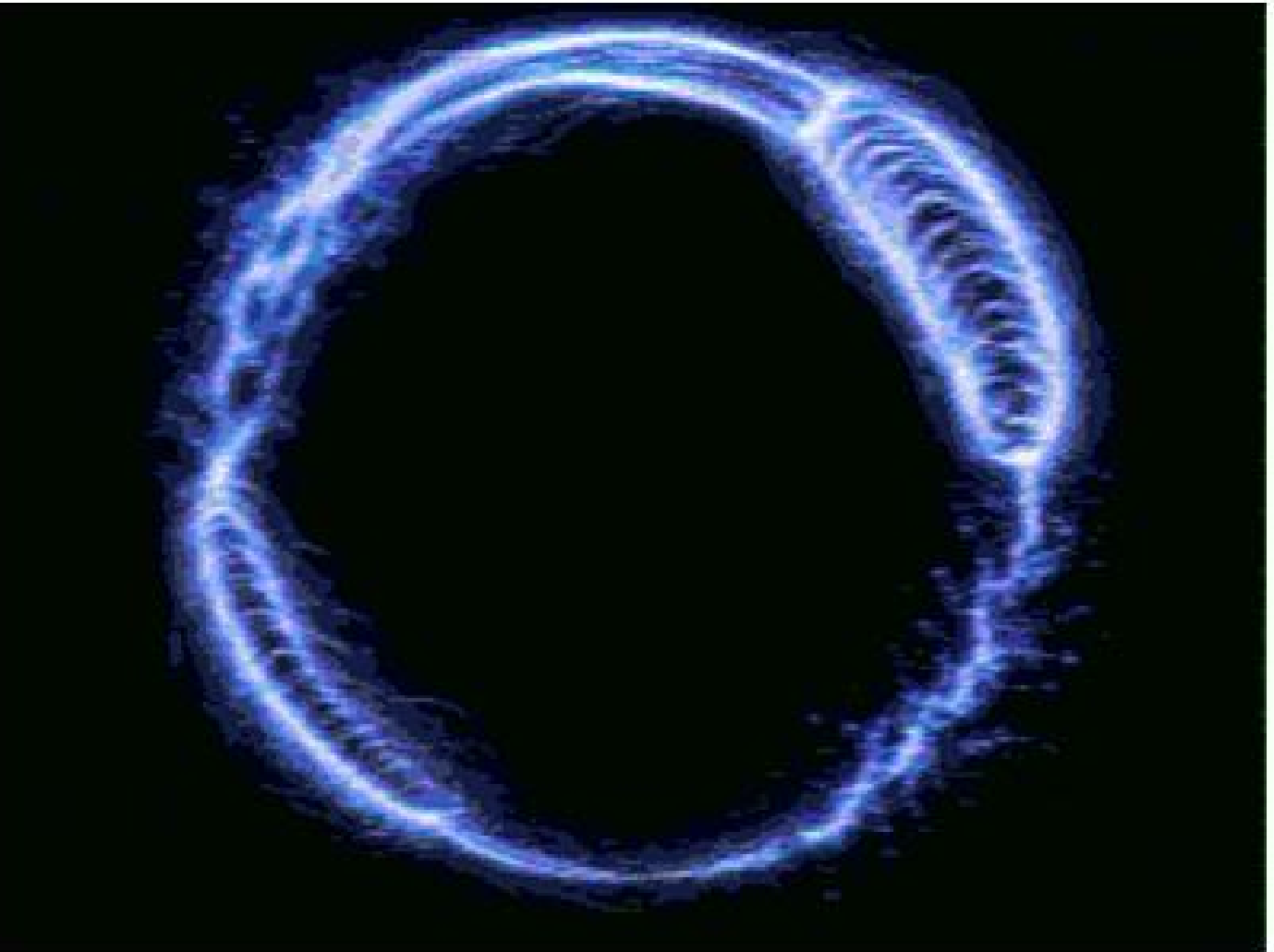
The project uses technologies such as MediaPipe FaceMesh, ml5.js, WebGazer, p5.js, and signal processing directly in the browser. Rather than focusing only on detection, the work explores how bodily data can be translated into visual and interactive forms. In this way, the interface becomes a space of interpretation between the body and the technological systems attempting to read it.



Coherent Rest 	0.20 / 0.85 / 0.55 / 0.80	Stable, centred, softly luminous ring. Even orbital speed, modest halo, closed structure.
Compressed Stress 	0.85 / 0.70 / 0.40 / 0.35	A tight, tense ring pumping fast. Bright compression, small central void, thin halo — structurally contained but pressured.
Fragmented Attention 	0.65 / 0.20 / 0.30 / 0.40	An incomplete arc: the ring does not close. Short trails, missing sections, some dispersal.
Restorative Halo 	0.15 / 0.80 / 0.55 / 0.95	A wide soft glow far outside a slow, spacious ring. The most peaceful image.
Memory Echo 	0.50 / 0.55 / 0.90 / 0.55	Three concentric rings — echoes of the same orbit. Long persistent trails, ghosted afterimages.
Thin Depleted 	0.35 / 0.35 / 0.20 / 0.20	An almost-flat hairline. Barely-there ring, small glow, short trails, near-broken. A quiet collapse.



Translated Image



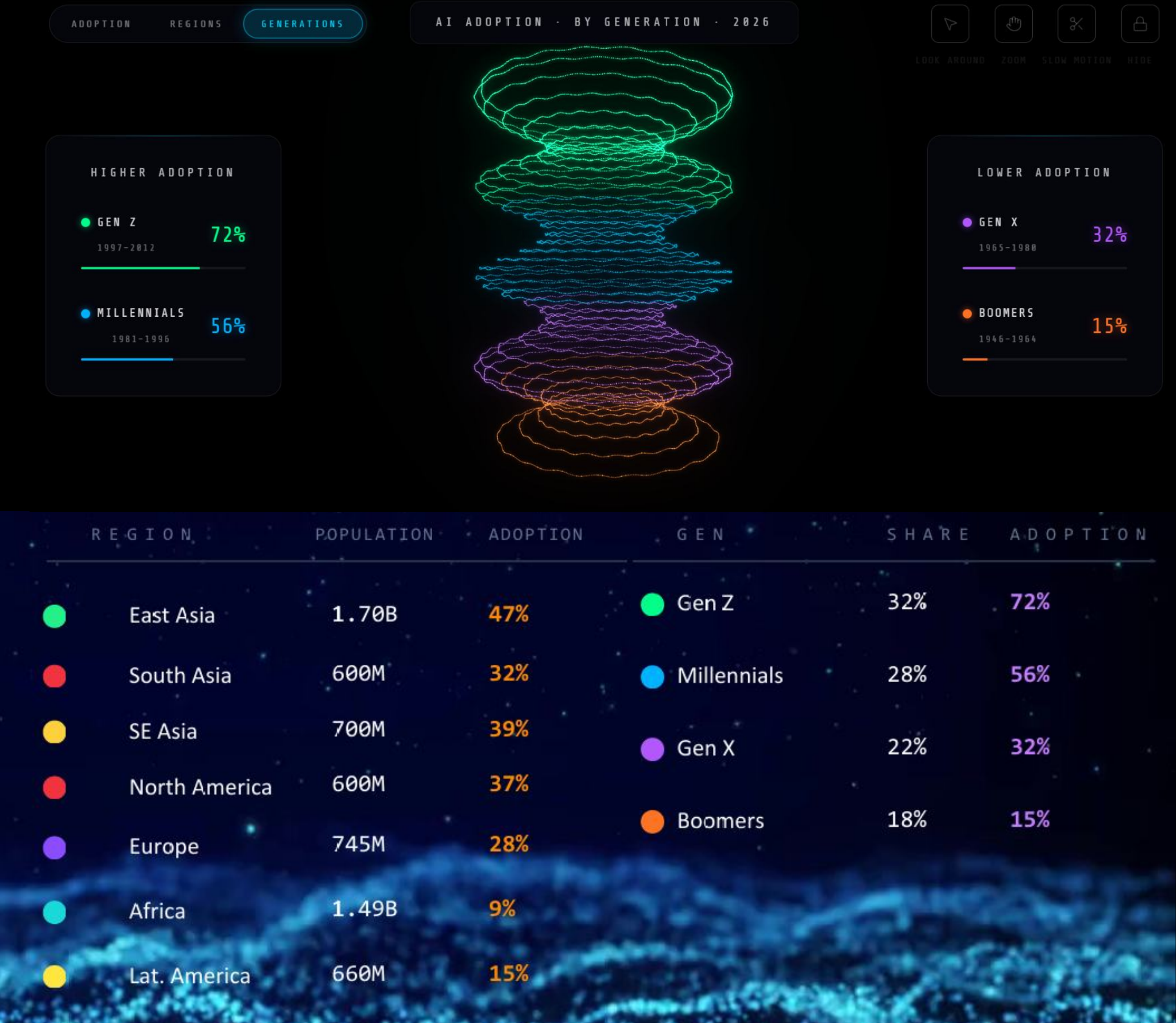
AI vs Humans, The Future of AI Adoption

By Diana Melody Garcia

AI vs Humans — The Future of AI Adoption transforms global patterns of artificial-intelligence use into an evolving field of particles. Drawing on adoption data across regions and generations, the visualization reveals a technological transformation that is global but far from uniform. Differences in geography, age, population, and access become visible within a shared generative environment.

Presented within Unity in Diversity, the work considers technological adoption as another contemporary geography of inequality and connection, asking how an increasingly common technological infrastructure is experienced differently across populations.

[Link to Prototype](#)



ADOPTION

REGIONS

GENERATIONS

AI ADOPTION · BY REGION · 2026



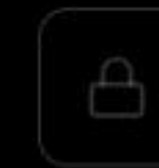
LOOK AROUND



ZOOM



SLOW MOTION



HIDE

MORE AI USERS

EAST ASIA 47%

SOUTH ASIA 32%

SE ASIA 39%

NORTH AMERICA 37%

FEWER AI USERS

EUROPE 28%

AFRICA 9%

LAT. AMERICA 15%

MIDDLE EAST 23%

[Link to Prototype](#)

Creative Code Students

Creative Code Students

Only the Rug

Survived the Blast

By Ekaterina Makarova

Only the Rug Survived the Blast proposes a data visualization book dedicated to the victims of wars that began and ended during the twentieth century. Each conflict is represented through a Persian rug, where colors identify the countries involved and the scale of the forms responds to the number of victims.

Instead of representing casualties as two opposing sides divided between winners and losers, the project brings them together within the same visual surface, showing the total impact of the conflict without distinguishing between soldiers, civilians, victors, or defeated sides. In the end, all those who died are victims of the same conflict.

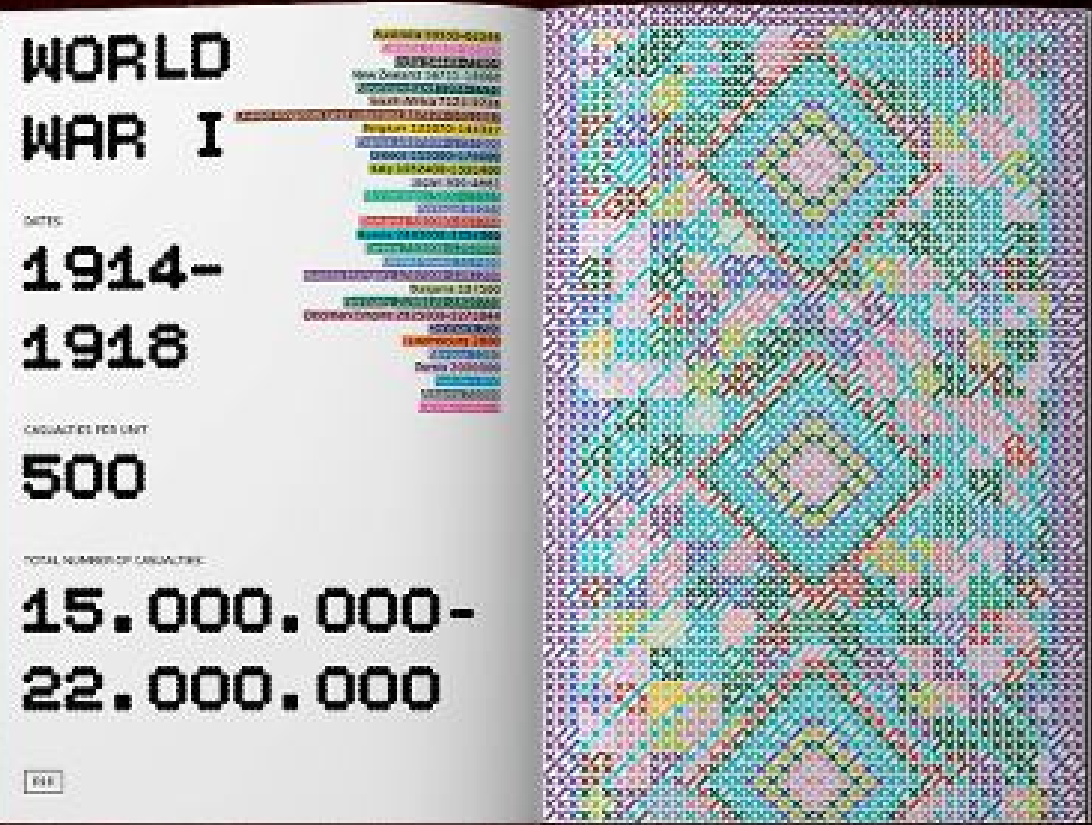
The scale of some visualizations can even extend beyond a single page and continue onto the next when the number of victims requires it. By transforming historical figures into a visual language, the work seeks to return a human dimension to statistics associated with war and to remind us that behind every number is a life affected by conflict.

[Link to Prototype](#)

DATA*

1. Name of the war
2. Countries involved
3. Dates
4. Number of victims

	A	B	C	D
1	Country	Color	Minimum (X) div 500	Possible (I) div 500
2	Albania	BDB251	140	0
3	Australia	ED5EE2	119	6
4	Austria-Hungary	373736	3574	588
5	Belgium	D0ECD5	248	41
6	Bulgaria	345050	375	0
7	Canada	C8BB9F	117	17
8	Denmark	693C10	2	0
9	France	F5D400	3394	82
10	Germany	1B0DD0	4397	1205
11	Greece	90A9CB	310	42
12	India	BAC431	129	19
13	Italy	D6D4FC	2105	498
14	Japan	32B87E	1	9
15	Liechtenstein	7369F6	0	0
16	Luxembourg	9D4943	6	0
17	Montenegro	75F0E9	6	21
18	New Zealand	61986C	34	3
19	Newfoundland	779CEE	2	1
20	Norway	633B81	2	0
21	Ottoman Empire	E3FBB2	5650	894
22	Persia	86509	4000	0
23	Portugal	C397AC	178	0
24	Romania	230863	1160	172
25	Russia	FF7B00	5680	1109
26	Serbia	4167D8	1500	1000
27	South Africa	DEB8FF	14	5
28	Sweden	2B9CD4	2	0
29	United Kingdom (and colonies)	EABDBD	1736	288
30	United States	5C2881	235	0



key information
about the war

number of casualties
by country

data
visualization

WORLD WAR I

DATES:

1914-
1918

CASUALTIES PER UNIT:

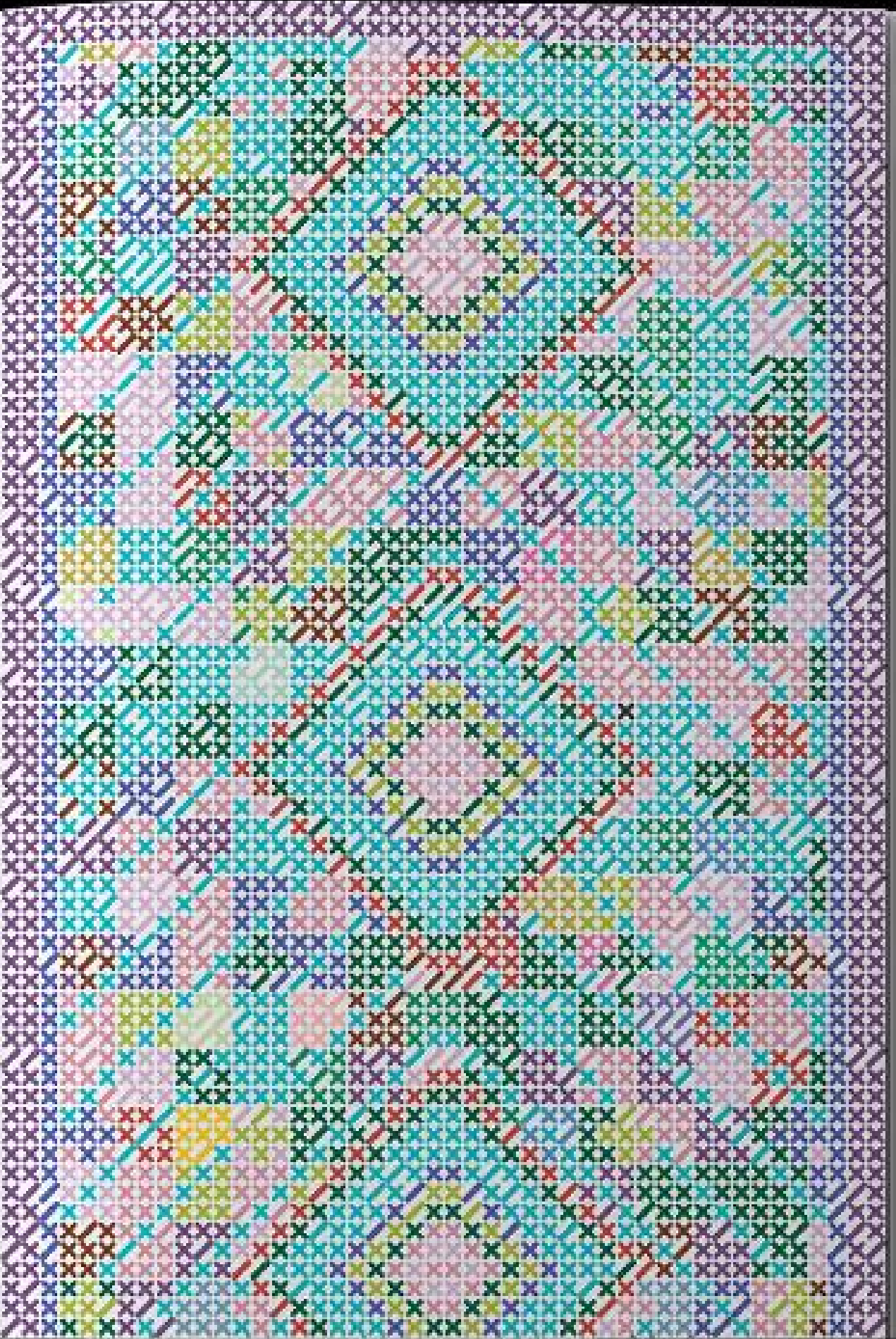
500

TOTAL NUMBER OF CASUALTIES:

15.000.000-
22.000.000

010

Australia	59330-62149
Canada	38034-40000
India	64000-70000
New Zealand	16711-18060
Newfoundland	11000-15000
South Africa	7121-9726
United Kingdom and colonies	1052000-1000000
Belgium	123870-144337
France	107000-120000
Greece	155000-176000
Italy	1052400-1301400
Japan	300-4661
Montenegro	3000-3666
Romania	10000-10000
Romania	55000-60000
Russia	2840000-3000000
Serbia	70000-100000
United States	100000
Austria-Hungary	1700000-2000000
Bulgaria	107500
Germany	2190000-2000000
Ottoman Empire	2825000-3271644
Denmark	000
Luxembourg	2000
Norway	000
Peria	2000000
Sweden	000
Albania	0000
Lebanon	0000



page no.

[Link to Prototype](#)

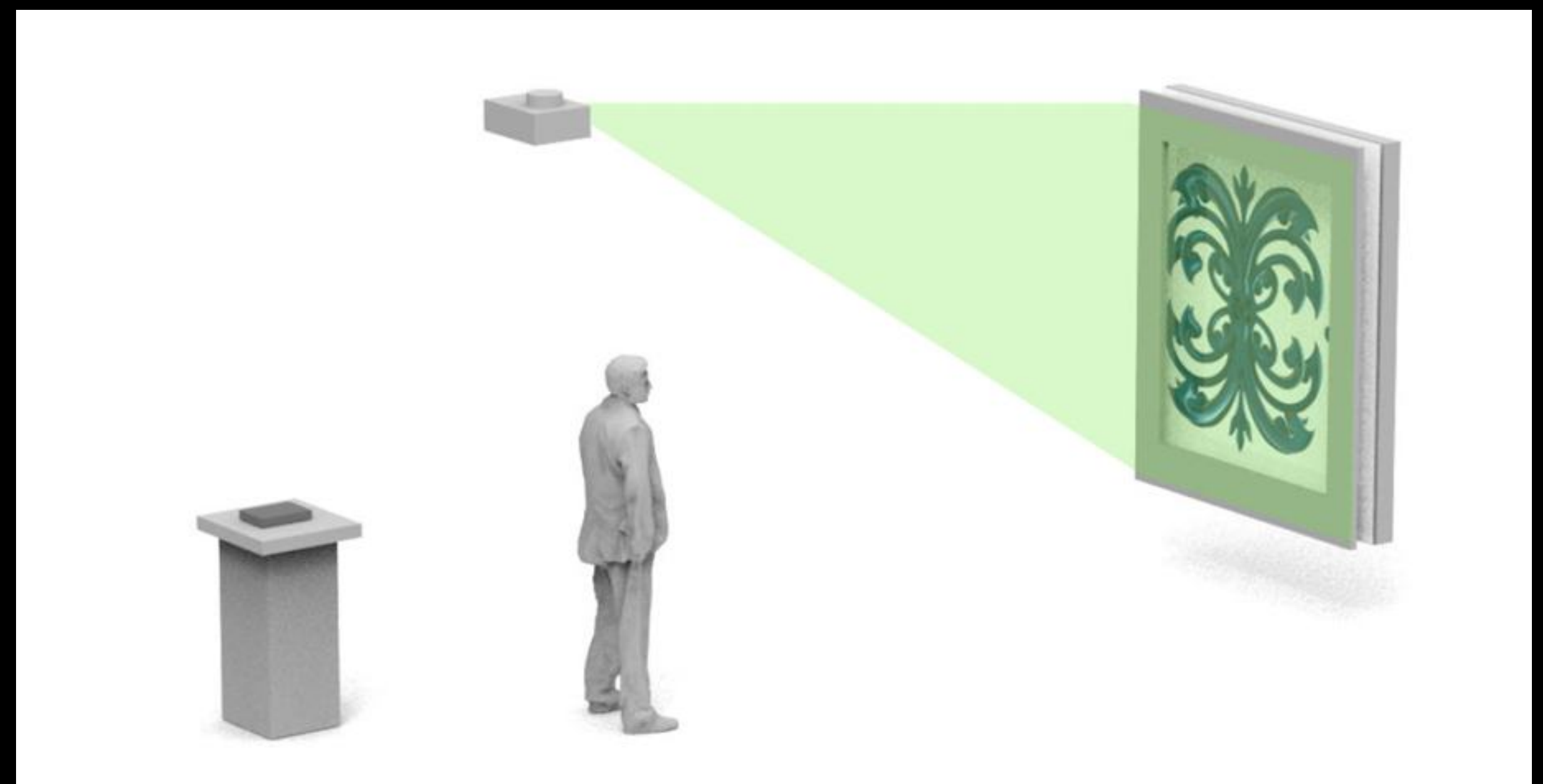
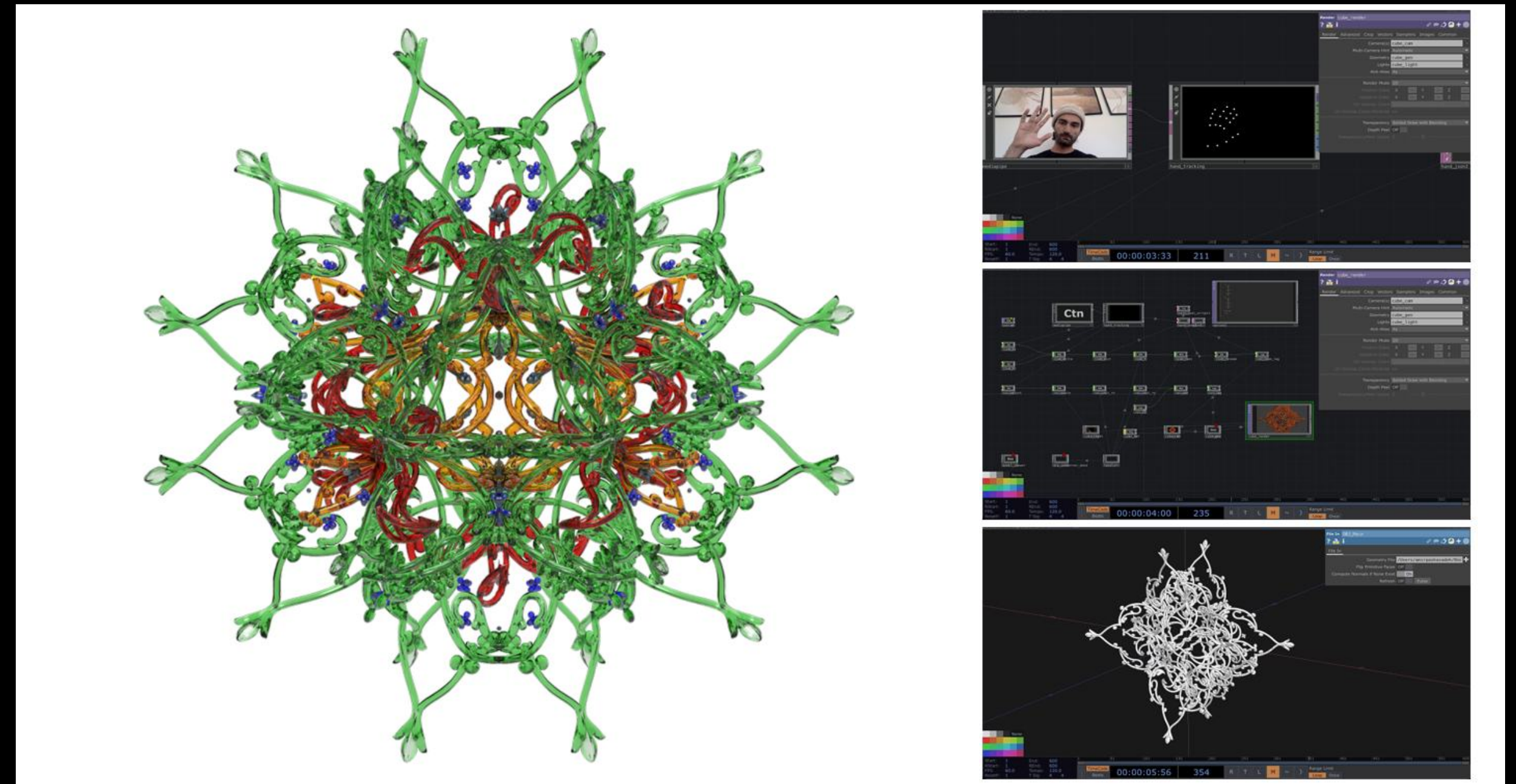
Persian Gates

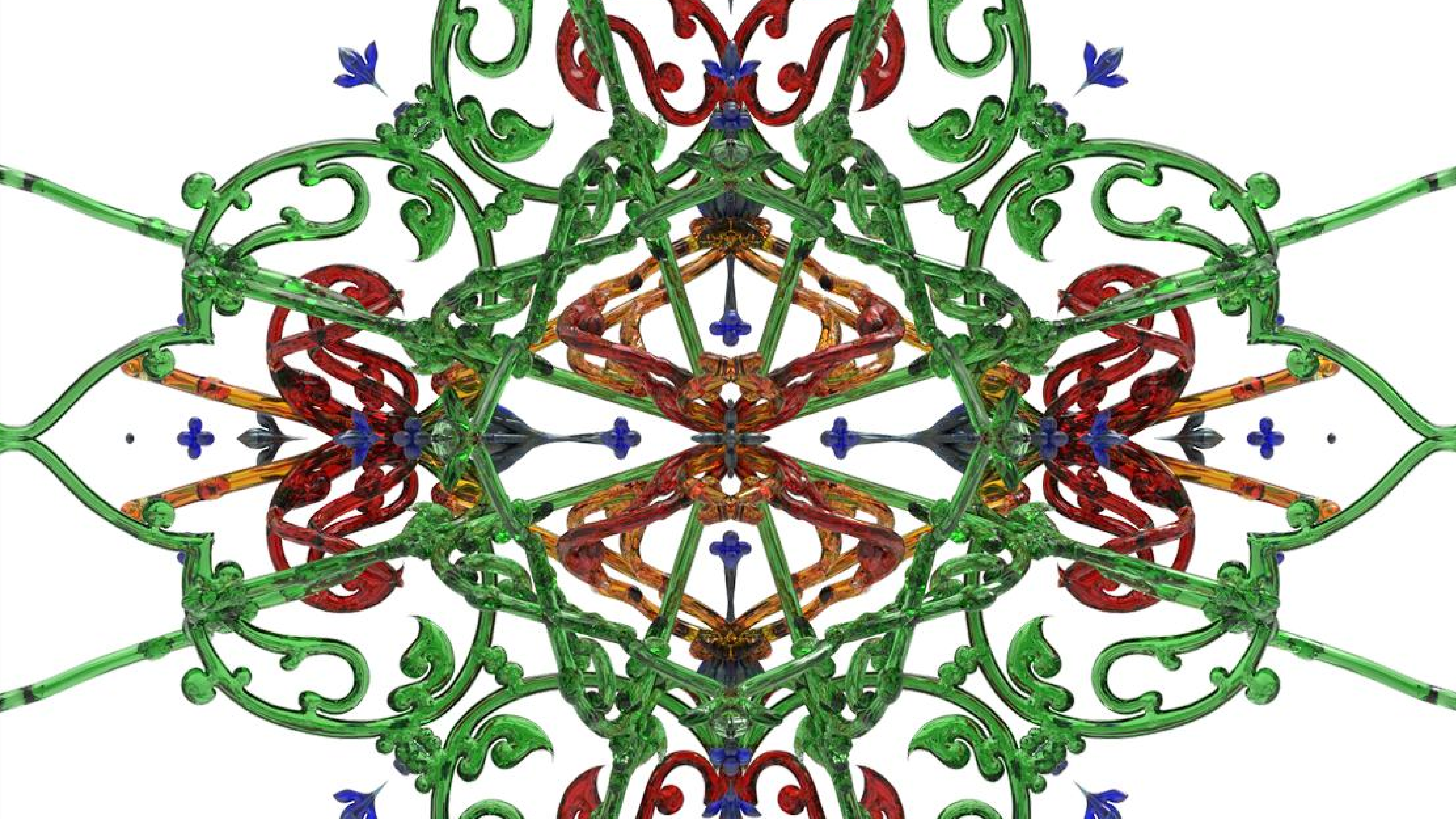
By Amirpasha Sadeh

Persian Gates begins with the Persian rug as an everyday, cultural, and emotional object present in many homes across the Middle East. Amirpasha Sadeh remembers these textiles not only as decorative elements, but as surfaces connected to childhood, play, and imagination, capable of suggesting codes, maps, or gateways to other worlds.

The project takes the two-dimensional patterns of Persian rugs and transforms them into three-dimensional structures, reinterpreting their floral and ornamental motifs as spatial forms that the audience can explore from different perspectives. Using TouchDesigner and hand tracking, the viewer can approach, rotate, and navigate these structures through gestures. The proposal also connects these “gates” with Iranian childhood stories, extending the relationship between memory, imagination, and cultural heritage.

Within Unity in Diversity, the work shows how inherited cultural memory can remain alive not only through preservation, but also through new translations, technologies, and forms of interaction, transforming heritage into an active and contemporary experience.



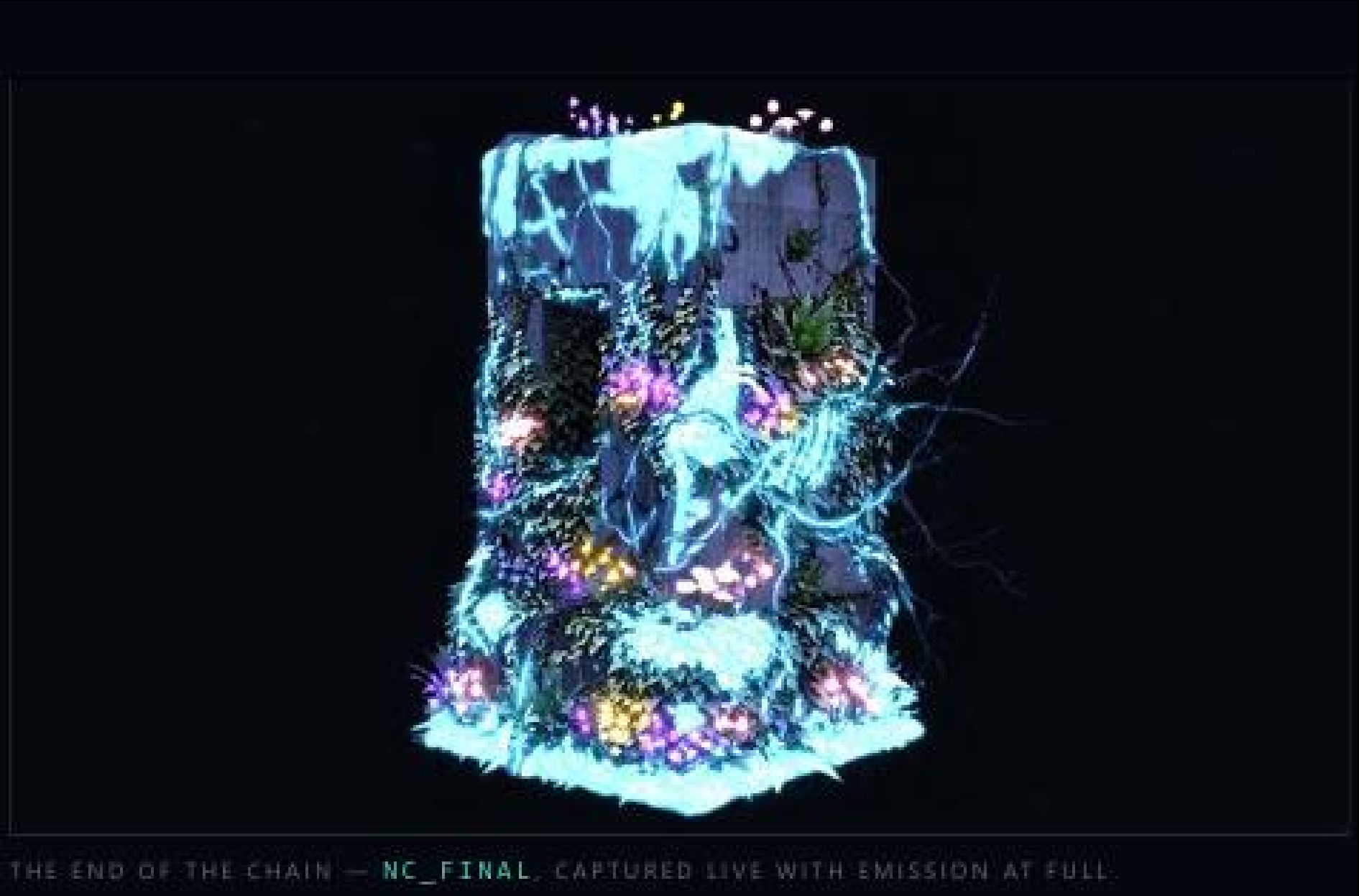


Interwoven

By Armaan & Himanshu Thakur

Interwoven addresses social regeneration after rupture. The work proposes that, after a catastrophe, conflict, or division, reconstruction does not happen individually, but through coexistence and collective action. This idea is represented through a fractured concrete structure that is progressively reclaimed by five species — moss, vine, plant, leaf, and flower — growing along the existing cracks. No single species can transform the ruin on its own; only their overlap produces the final image of regeneration.

The viewer becomes part of this process through the movement of their hands, which controls the progression and reversal of the growth. In this way, repair becomes a participatory action. Within Unity in Diversity, the viewer’s hands function as a metaphor for people as agents of reconstruction, showing how, after social or urban fractures, diversity and collaboration can give rise to new forms of life.



Anatomy of the moss layer

Every species — moss, vine, plant, leaf, flower — is **the same eleven operators** with different source files and different timings. Nineteen operators per species including the shader text DATs; ninety-five in total. Below is one of them, end to end.

nc_moss_diff
MOVIEFILEIN
Colour — the moss as it would look flatly lit.

nc_moss_norm
MOVIEFILEIN
Normals — surface direction, so light catches each frond.

nc_moss_pack
GLSL TOP
AO + roughness packed to one texture.

nc_moss_pbr
GLSL
The lit material — **fully grown, always**. This never animates.

nc_moss_guide
MOVIEFILEIN
The growth guide — a greyscale map of the order in which this species should appear.

nc_moss_revM
LEVEL TOP
The guide turned into a hard mask by a moving window. Captured mid-growth so the dissolve edge is visible.

nc_moss_revA
REORDER TOP
That mask moved into the alpha channel.

nc_moss_cov
MULTIPLY TOP
Material x mask — coverage. What has actually grown so far.

nc_moss_rev
REORDER TOP
Colour from the material, alpha from the coverage — **premultiplied**, which is what the compositor expects.

THE ELEVEN OPERATORS, WIRED — THIS EXACT SHAPE EXISTS FIVE TIMES

```
graph LR; nc_1_diff[nc_1_diff  
MOVIEFILEIN] --> nc_1_pbr[nc_1_pbr  
GLSL TOP]; nc_1_norm[nc_1_norm  
MOVIEFILEIN] --> nc_1_pbr; nc_1_ao[nc_1_ao  
MOVIEFILEIN] --> nc_1_pack[nc_1_pack  
GLSL TOP]; nc_1_rough[nc_1_rough  
MOVIEFILEIN] --> nc_1_pack; nc_1_pack --> nc_1_pbr; nc_1_guide[nc_1_guide  
MOVIEFILEIN] --> nc_1_revM[nc_1_revM  
LEVEL TOP]; nc_1_revM --> nc_1_revA[nc_1_revA  
REORDER TOP]; nc_1_revA --> nc_1_cov[nc_1_cov  
MULTIPLY TOP]; nc_1_pbr --> nc_1_cov; nc_1_cov --> nc_1_rev[nc_1_rev  
REORDER TOP]; nc_1_rev --> nc_grown[nc_grown (the gate)]; nc_1_rev --> nc_comp[nc_comp (the picture)];
```

MATERIAL PATH — NEVER ANIMATES MASK PATH — THE ONLY THING GROWTH TOUCHES 1 = MOSS · VINE · PLANT · LEAF · FLOWER

The one idea worth taking from this page: the material is static and the mask is animated. Rendering a frame of growth therefore costs a texture lookup, not a simulation — which is exactly why five species can grow in real time while a camera tracks a hand.



00 Dormant

GROWTH 0:00 - BARE

Cold and legible as a ruin. Cracks, exposed rebar, a plinth. Only a surface with weaknesses.



01 First contact

MOSS - FRAME 30

The pioneer: a soft field, not a shape. It settles on ledges and horizontals — where water sits.



02 Ascent

VINE - FRAME 150

Vines climb rather than fade in, following a guide bottom-to-top. The building is taken from the ground up.



03 Colonisation

PLANT + LEAF - 690 / 960

Ferns flush at the base; leaves fill the vine mass. The silhouette becomes volume, not architecture.



04 Bloom

FLOWER - 1230 -> HOLDS

Flowers arrive last and highest. The reveal saturates and holds — the piece rests here.

Thank You

Aditya Vikram Singh Tomar, Akshay Krishna Radhakrishnan, Amirpasha Sadeh, Anna Fedorova, Armaan, Aayushmaan Jain, Diana Melody Garcia, Eduardo Efrain Huanqui, Ekaterina Makarova, Esther Njeri Njenga, Filipa Abreu, Gaia Dimase Petiti, Himanshu Thakur, Marco Arturo Osorio Shreyas Saxena, Vashishta Avadhani Gangu.