MEDIA DISRUPTION LED BY THE BLIND

HACKING VISUAL CULTURE

W/ THE GLAD SCIENTIST

Daniel Eric Carlos Hector Alberto Sabio

CLOSE YOUR EYES

AND LISTEN

IMAGINE

as minutes as hours as years

IMAGINE

this as your status quo perspective

IMAGINE

minutes as hours as yea

IMAGINE

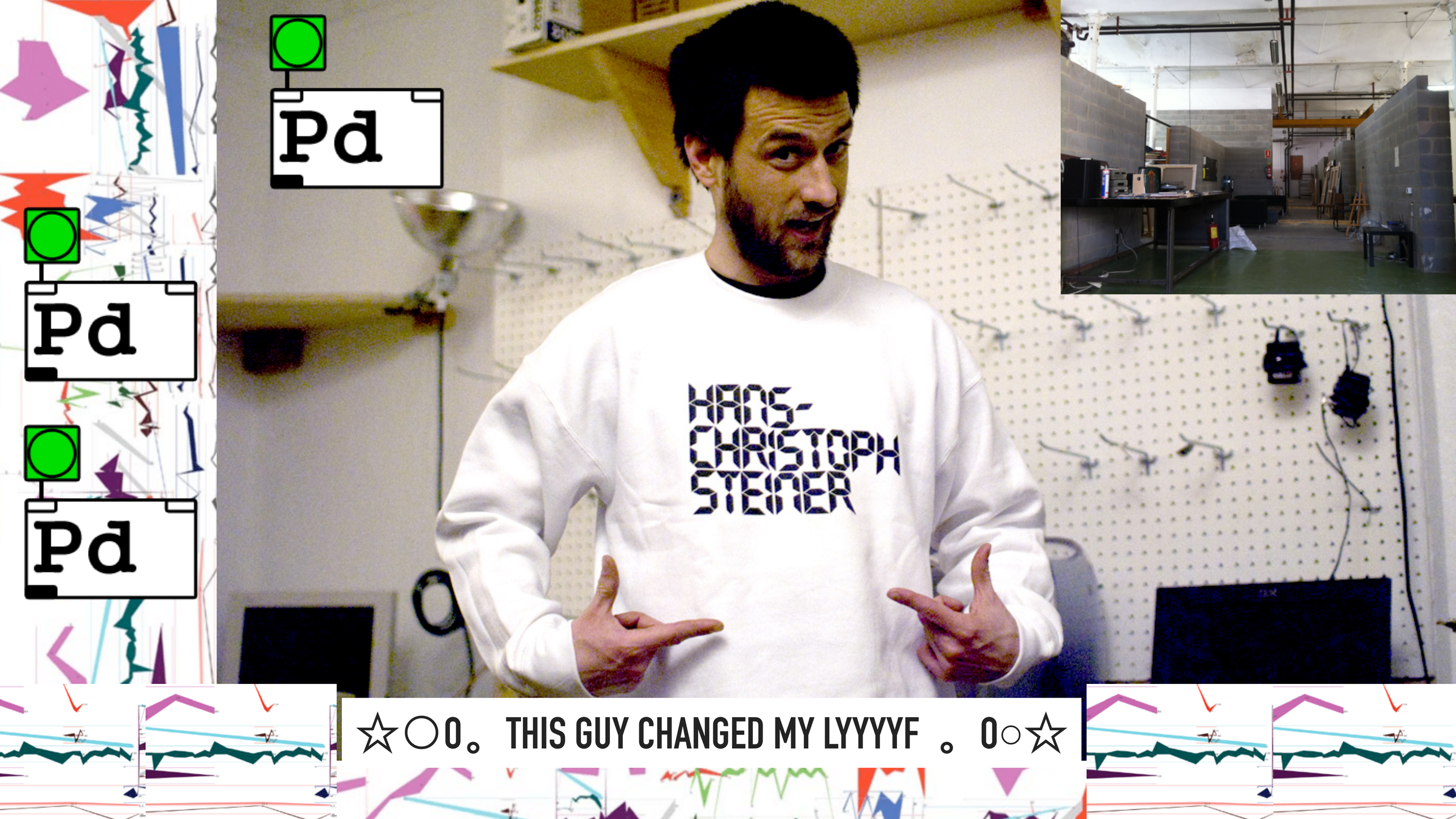
the thousands of years spent attending to visual persuasions, and how you personally would interpret everyday computing with your newly gained perspective.

REAL QUICK: A LONG STORY

PERMISSION GRANTED

INTERRUPT THE F OUT OF ME, PLZ

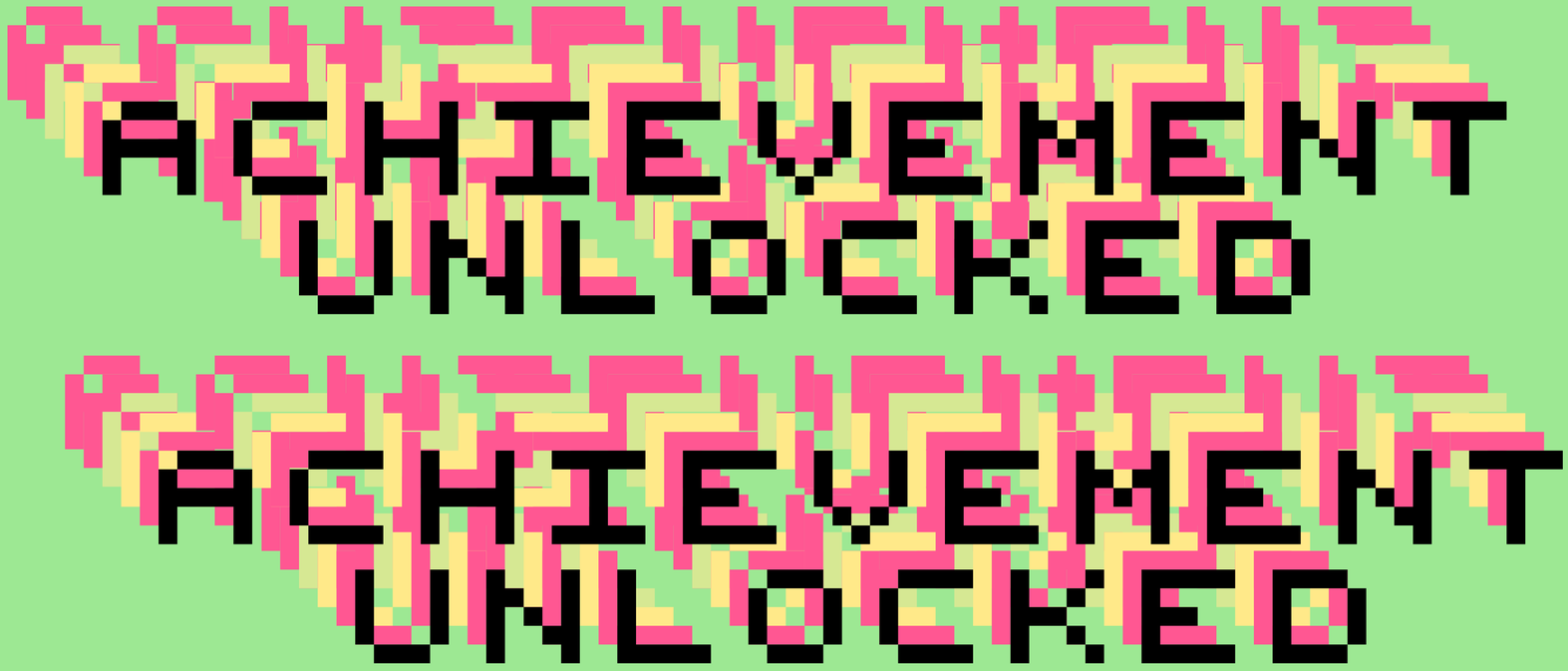
5 YRS OLD
ME: I WANNA MAKE VIDEO GAMES.
MOM: YEAH, OKAY.
MOM: WHAT YOU GON' DO IN LIFE KID?
ME: I WANNA MAKE VIDEO GAMES.
15 YRS OLD


Pd
Pd
Pd
HANS-
CHRISTOPH
STEINER
☆○0。 THIS GUY CHANGED MY LYYYYF 。 0○☆

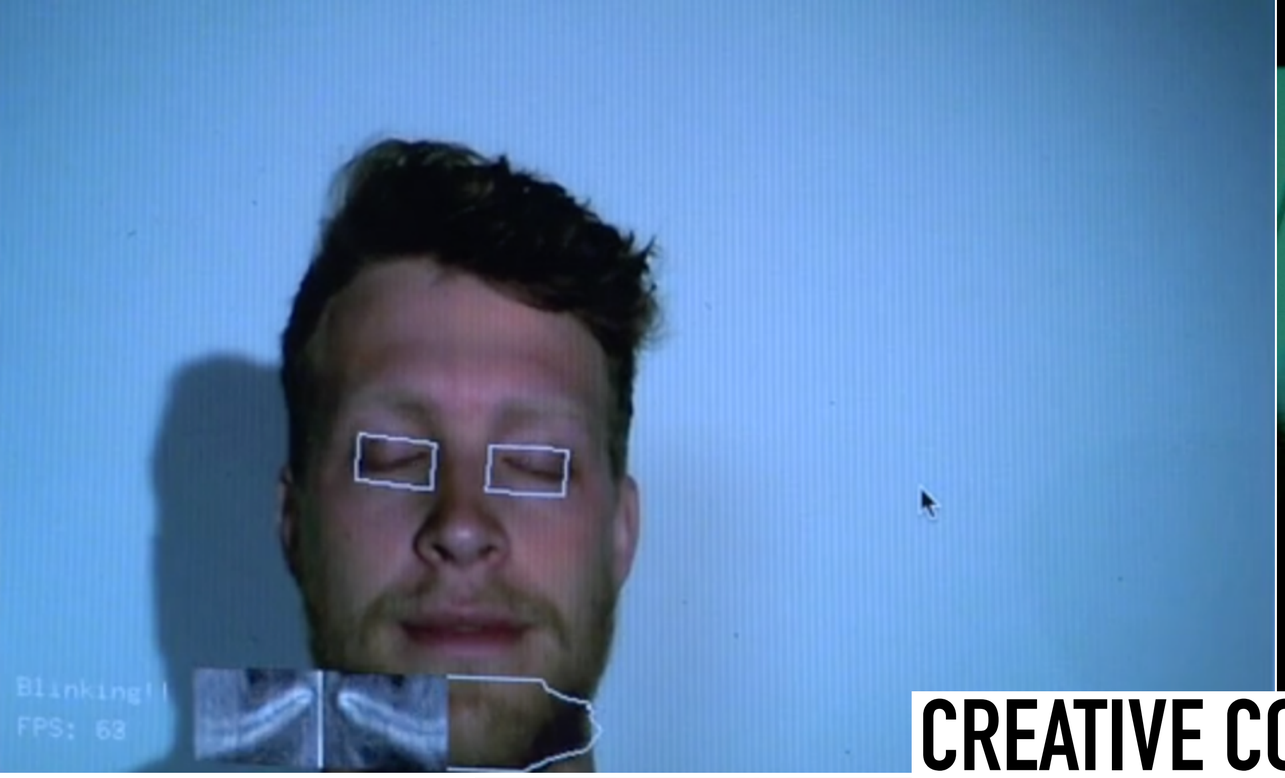
MY FEED.

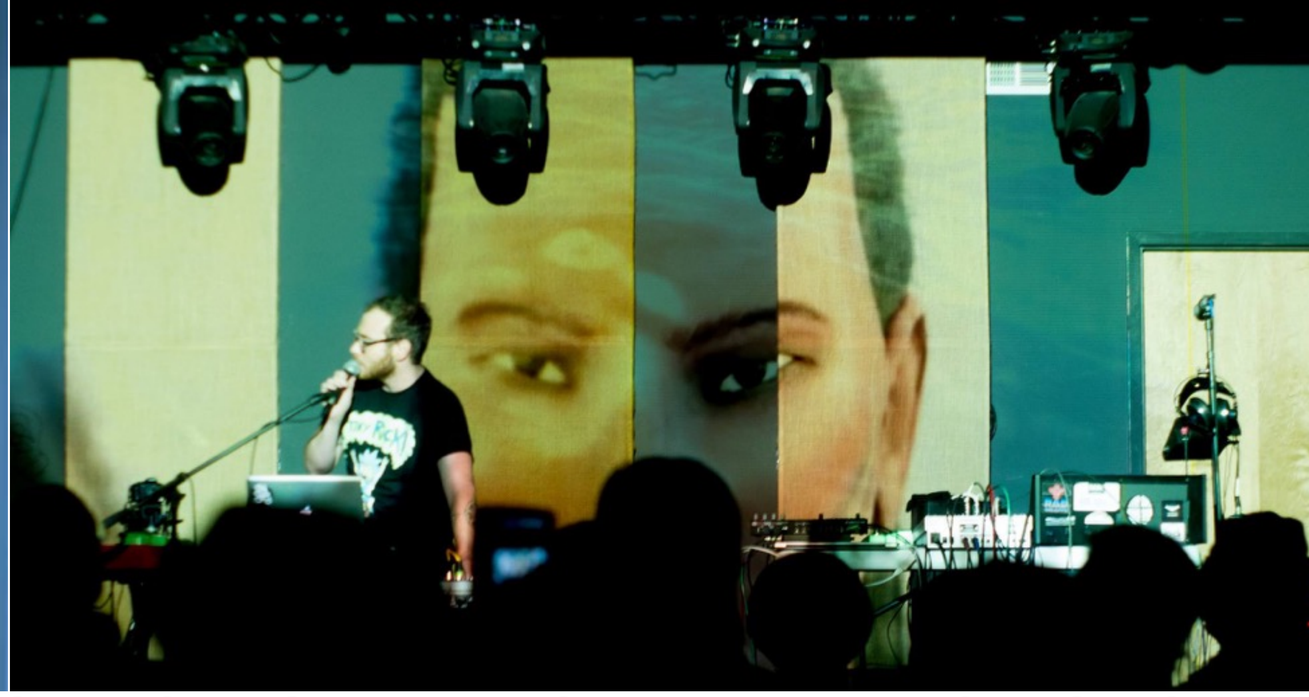
INTERRUPT THE F OUT OF ME, PLZ

CODE IS ART?

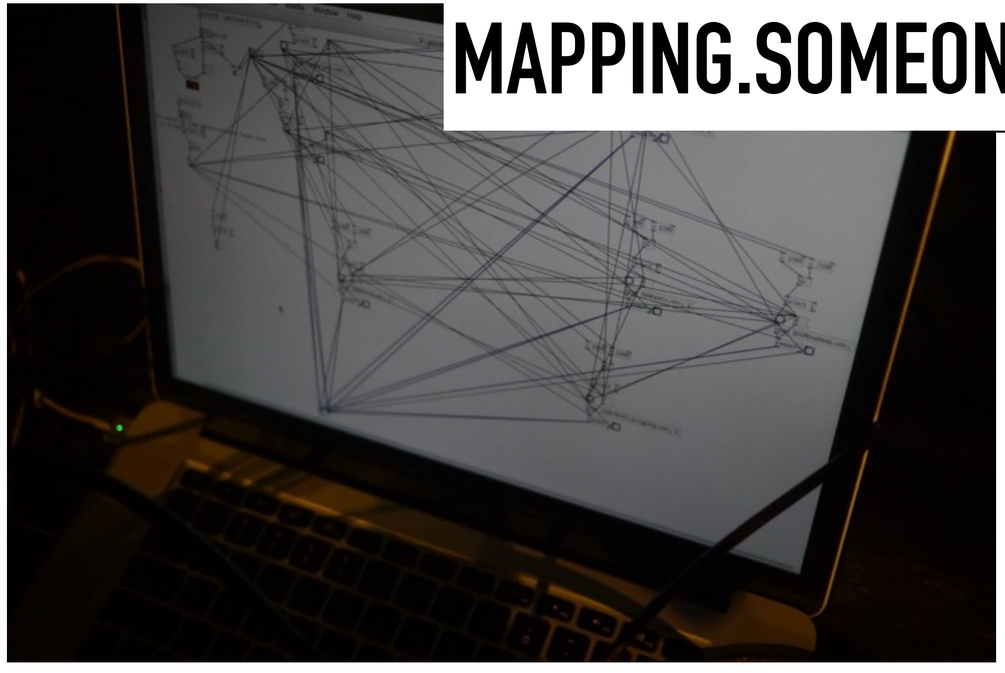


ACHIEVEMENT
UNLOCKED





CREATIVE CODING.INSTALLATION ART.VJ.PROJECTION MAPPING.SOMEONELIKESTECHNOLOGYANDARTIGUESS.



YO, THOUGHT THIS WAS ABOUT VR DOE.

INTERRUPT THE F OUT OF ME, PLZ

K THX

IMMER.

VR IS IMMERSIVE

SIVE

ART

(//◕/ ‿ /◕//✿)

(//◕/ ‿ /◕//✿)

(//◕/ ‿ /◕//✿)

(//◕/ ‿ /◕//✿)

アニト

アニト

アニト

(✿Ⓞ ف Ⓞ)🔪?
MUSICIANS BEHIND LAPTOPS

Spatial Audio

ハイテク

ハイテク

ハイテク

Spatial Audio/Sound for XR

Common Tools for XR Sound

For most DAWs:
Oculus Spatializer
Google VR Plugin
Sfaer (beta)
Facebook 360 Plugin

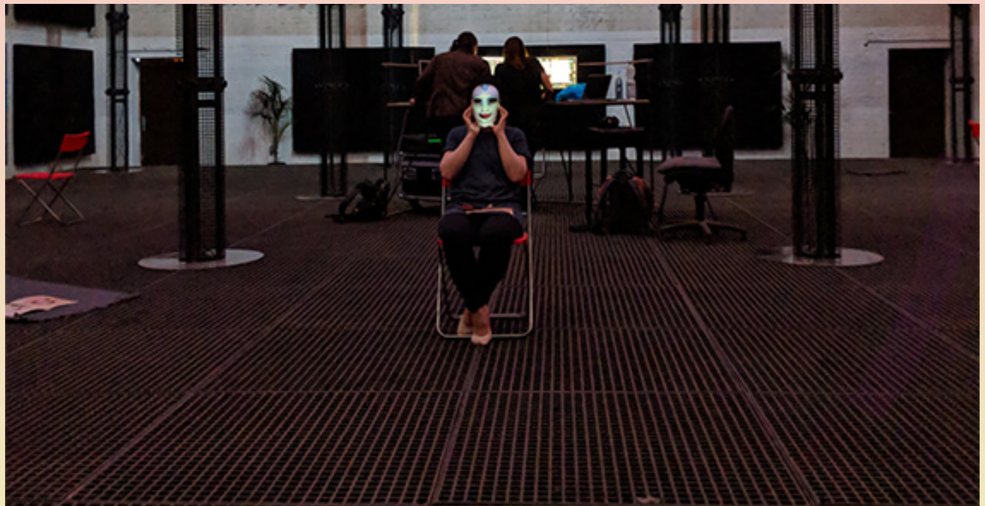
For game engine specific work:
FMOD
Wwise
DearVR (also an expensive VST)
Master Audio
SECTR Audio

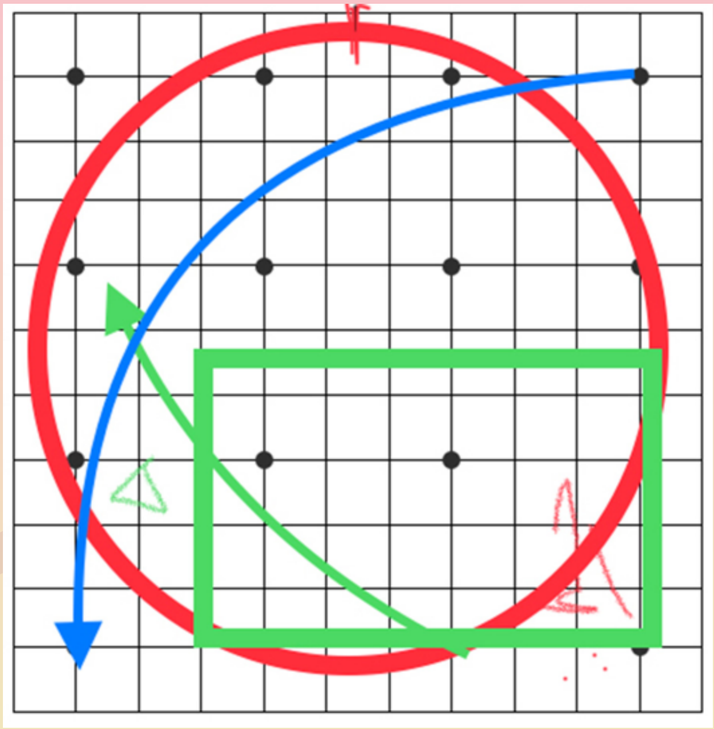
Common Game Engines:
Unity
Unreal Engine

Multispeaker Arrays

Some Tools:
SPAT (Max patch by IRCAM)
Harpex
Sfaer (beta)
Facebook 360 Plugin
EnvelopForLive (if you use Ableton)

how does a group audio-driven VR experience look?





GRATITUDE IS KEY

THIS IS IMPORTANT THO 4 BEING A GOOD GROWNUPKID.

LORI GAWRYLUIK
ECE TUNKAL
KARINA HISAYASU
ANYA ELYUTINA
SCHOOL OF MA
THBAE

INTERLUDE OVER.
PARENTAL
ADVISORY
EXPLICIT CONTENT

CLOSE YOUR EYES

AND FEEL

again again again again again again again again again

IMAGINE

as minutes as hours as years

IMAGINE

this as your status quo perspective

again again again again again again again again again

put on these goggles it'll make your world change

VR IS . . .

INSULAR. BEST IN BED.

F THAT NOISE.

HAS TO TRANSPORT YOU SOMEWHERE ELSE.

VR & AR ARE TOOLS.

HAS ESTABLISHED STANDARDS

XR IS THE FUTURE OF HCI

put on these goggles it'll make your world change

IMPORTANT MESSAGE FROM PRESENTERBOY

~~VISUAL~~

VIRTUAL REALITY

(✿◠‿◕)つ━━☆・*。

IMPORTANT MESSAGE FROM PRESENTERBOY

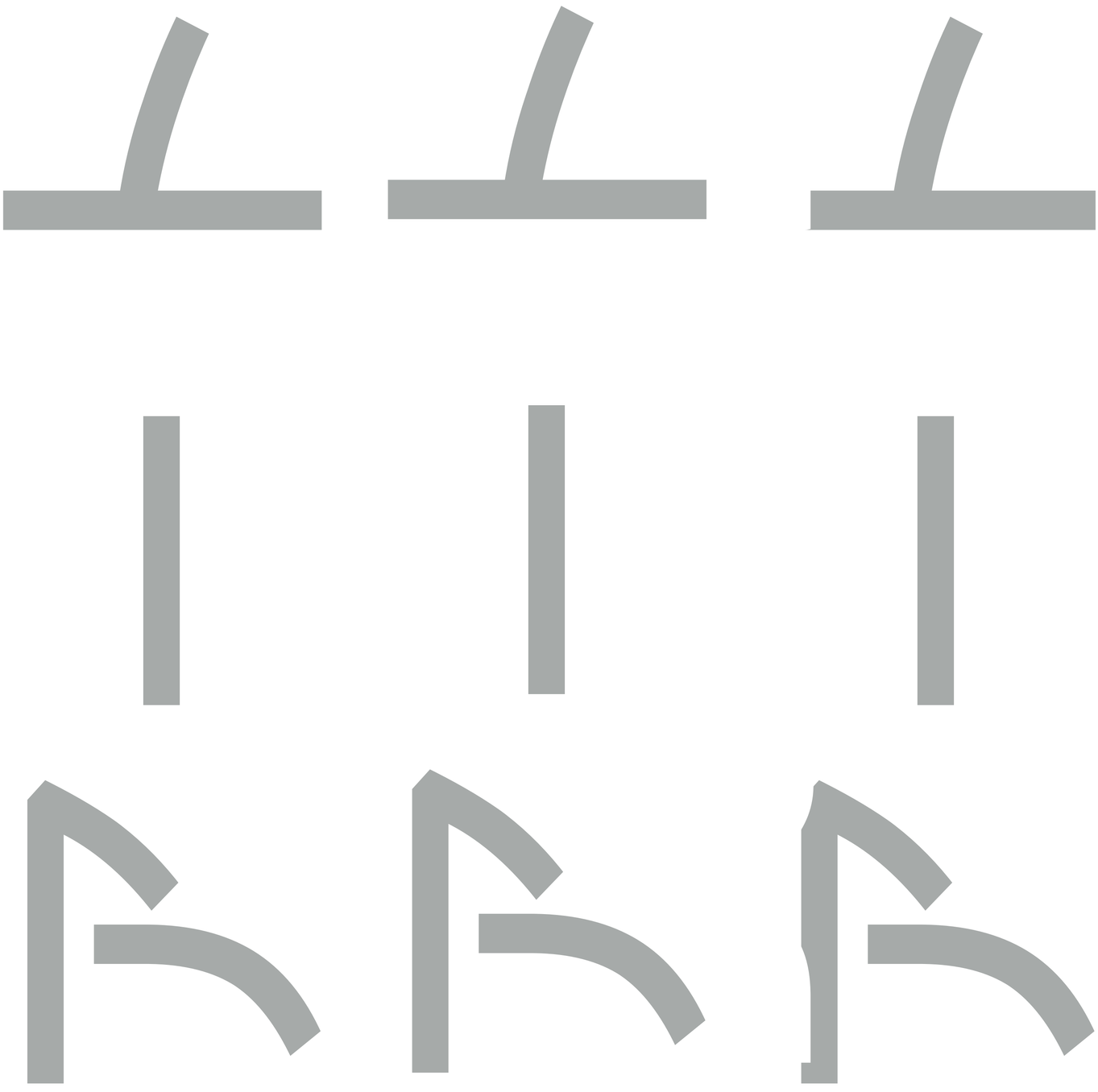
our shared inquiry...

WHAT IS IT LIKE TO BE BLIND? WHY IS CULTURE SO DAMN VISUAL?

our shared inquiry...transformed.

WHAT IS A VR EXPERIENCE FOR THE BLIND LIKE?

CAN IT CHALLENGE VISUAL CULTURE?



the Japanese letters just say art over and over.

HATERS BE LIKE:

CRAY

hatersgonnahatehatersgonnahatehatersgonnahate
hatersgonnahatehatersgonnahatehatersgonnahate

THERE'S A LIMIT TO YOUR LOVE.

RESEARCH

BUT THERE'S NO LIMIT TO OUR IMAGINATION.

again again again again again again again again again

IMAGINE

as minutes as hours as years

IMAGINE

this as your status quo perspective

again again again again again again again again again

REMEMBER

i will never be able to actually empathize.

it's not that sad, it's actually more beautifuller.

that was just 30 seconds

REMEMBER

that was your status quo perspective after 60 seconds total.

YANY AND TINAH

LIVING WITH THEM, THE DARK EXPERIENCE.

There's no VR accessibility consideration for the blind

YANY AND TINAH

UX FOR VR AS WE KNOW IT, YANY'S SECRET POWERS.

~~VISUAL~~

VIRTUAL REALITY

(✿◠‿◕)⊃━━☆・*。

CONSIDER YOURSELF...REMINDED

STORYBUILDING

THIS STUFF IS UNDERRATED, BUT SUPER IMPORTANT

INFINITE OBSERVER

the backstory.

STORY BUILDING

THE INFINITE OBSERVERS ARE A GROUP OF UNDERGROUND (YES SUBTERRANEAN) HACKERS WHO WANT TO SUBVERT THE DOMINANT FORCES THAT HAVE CORRUPTED SOCIETY THROUGH VISUALLY DOMINATED CULTURE.

key mechanics.

STORY BUILDINGS

THERE ARE SUPERPOWERS THE SIGHTED CAN'T ACCESS THAT THE BLIND POSSESS WITH EASE.

-ECHOLOCATION
-FREQUENCY MATCHING
-VIBRATIONAL INTUITION

-ECHOLOCATION (GAME GEO)
-RESONANT FREQ GUN
-SENSING SEISMIC SHIFTS, DISRUPTING VISION BY VIBRATION

STORIED BUILDINGS

HOW CAN WE TELL A META-NARRATIVE AND INCLUDE A REAL UNDERGROUND SOCIETY IN THE CREATION OF THE ART?

-SITE-SPECIFIC INSTALLATIONS (MERGE IN-GAME AND POST-GAME EXPERIENCES)
-WEB-BASED COMMUNITY
-AUDIO-ONLY COMMUNICATION PLATFORM

Meta-narrative, interaction design, blurring lines.

TECHNICALITIES

KEDAR, WWISE, AND A WORLD OF LIMITATIONS

TECHNICALITIES

WE ARE USING WWISE AND ITS PLUGINS TO CREATE A LIFE-LIKE SPATIAL AUDIO ENVIRONMENT FOR USERS.

PARTICULARLY WE ARE HEAVILY USING WWISE REFLECT TO DETECT THE IN-GAME GEOMETRIES AND CALCULATE REFLECTIONS OF SOUNDS IN REAL TIME.

OBVIOUSLY SOUND DESIGN FOR SPATIAL AUDIO IS A BIT DIFFERENT, AND IT TAKES A SUBSTANTIAL AMOUNT LONGER TO PREPARE STEMS TO PUT IN THE MIDDLEWARE SO THAT THE GAME ENGINE KNOWS HOW TO RELATE TO THEM ALGORITHMICALLY.

QUESTION: IS THE SOUND ENGINE ENOUGH TO BE CONVINCING FOR THE BLIND?

TECHNICALITIES

SO FAR WE HAVE WORKED IN UNITY3D, BUILDING DIRECTLY TO OCULUS RIFT AND STEAM VR.

WE WANTED TO CREATE AN EXPERIENCE THAT WAS ACCESSIBLE TO BOTH THE BLIND AND SIGHTED, AND COULD BE DISTRIBUTED TO PC VR USERS WORLDWIDE.

USING A GAME ENGINE HAS ITS ADVANTAGES, AS IT IS ESSENTIALLY A PLUGIN SANDBOX FOR A VARIETY OF DIFFERENT CODE LIBRARIES THAT CAN BE COMBINED.

TECHNICALITIES

ALL THESE LIMITATIONS WITH VR AND ITS ACCESSIBILITY ISSUES RAISES QUESTIONS AGAIN ABOUT WHAT IS NECESSARY FOR A COMPELLING VIRTUAL REALITY FOR THE BLIND.

DOES IT NEED TO COMPLY TO MAINSTREAM BUILD TARGETS LIKE THE OCULUS AND HTC VIVE IF WE HONE IN ON JUST BLIND USERS?

CAN AN AUDIO-ONLY VERSION EXIST AS A PROTOTYPE TO WIDELY TEST WITH SMART PHONE USERS?

HOW CAN WE CREATE CUSTOM SOLUTIONS THAT CAN TRAVEL USING COMBINED SYSTEMS (HAPTICS, SPATIAL AUDIO, REAL-WORLD OBJECTS, ETC)

these are the most inspiring people I know.

OH, HI TEAM.

these are the most inspiring people I know.

kinda like instant ramen but lasts longer.

THE INSTANT RESULT

TO EMPOWER THE BLIND, AND CREATE A HEIGHTENED APPRECIATION FOR THE HIDDEN POWERS OF THE SENSES BEYOND SIGHT.

THROUGH THE NARRATIVE IT IS DESIGNED TO INSTILL CLARITY AROUND THE DOMINANCE OF THE VISUAL IN MODERN CULTURE, AND INSPIRE WAYS TO CIRCUMVENT THIS.

BIG GOALS

CREATE A VOICE FOR THE BLIND AND VISUALLY IMPAIRED IN IMMERSIVE TECHNOLOGIES AND THEIR DEVELOPMENT CYCLES (BOTH HARDWARE AND SOFTWARE). IDEALLY THIS WOULD BE A WAKE-UP CALL FOR ALL FUTURE TECHNOLOGIES.

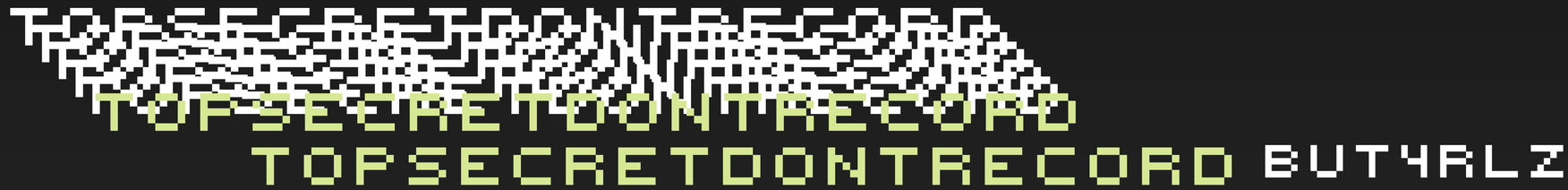
CREATE A COMMUNITY FOR INTERACTION BETWEEN REAL-LIFE BLIND HACKERS TO DISCUSS ANONYMOUSLY AND POTENTIALLY PRACTICE OR DEVELOP NEW TECHNIQUES TOGETHER INSPIRED BY THE NARRATIVE.

undefined

OMG IT'S A VIDEO!

https://vimeo.com/295324211/bc13c56a65

FINALLY DUDE.



Warning: early prototype alert!

QUESTIONS

DO YOU HAVE EXPERIENCE USING SOUND/ NOISE IN THE CONTEXT OF HACKING?

WHAT DO YOU THINK OF THE COMMUNITY EXTENSION OF THE PIECE?

IS THERE RESEARCH OUT THERE THAT COULD HELP THIS PROJECT?

[INSERT ORIGINAL QUESTION HERE]

AMAAMAAMAAMAMAMAMAMAMA's boy

QUERIES

ARE THERE SIMPLE SOLUTIONS WHERE SOUND COULD CIRCUMVENT VISUAL CULTURE'S INHERENT LACK OF PRIVACY?

WAS THE CLOSING YOUR EYES THING TOO MUCH OR COOL?

[INSERT ORIGINAL QUESTION HERE]

this is my last chance to heckle myself. missed it.

CLOSE YOUR EYES

FEEL AND LISTEN

GET IN TOUCH! THIS KIND OF TOUCH DOESN'T HURT!

BE SWEET
@THEGLADSCIENTIST

BE TWEET...
@ZEGLADSCIENTIST

GRATITUDE
GRATITUDE
GRATITUDE
GRATITUDE
GRATITUDE
GRATITUDE

SABIO@THEGLADSCIENTIST.INFO