[CAPTURES] Echoes of Archs

[CAPTURES]

linens

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[PERFORMANCE OVERVIEW]

360 live AV ahow / Multichannel audio / [40min]

«Captures» invites to embark on a journey through generative universes, sinusoidal waveforms, and pointcloud architectural scans of local environments.

This immersive audiovisual performance is designed to transport the public through a 40 minutes evolution of both digital and physical spaces, merging abstract creation with tangible reality.

SEQUENCE AND EVOLUTION

The sequence begins with the construction of intricate procedural spaces built from 3D volumes. These digital architectures are dynamically generated, creating a visually captivating introduction to the performance. As the journey progresses, these synthetic structures gradually dissolve and transform, seamlessly merging into pointcloud 3D scans of spaces and architectures. This evolution creates new states of perception, transforms notions of scales and dimensions.

IMMERSIVE EXPERIENCE

Every sound and visual element is processed in real-time, ensuring a unique and responsive presentation on each venue. The spatialization of both sound and visuals is designed to envelop the audience, creating the feeling of being part of this parallel reality.

INTERCONNECTED SOUND AND VISUALS

At the core of «Captures» is the intricate connection between sound and visuals. The music, composed for this performance and live interpreted, drives the visual transformations, while the visuals influence the auditory experience. Sinusoidal waveforms and complex soundscapes intertwine with the evolving architectural forms, creating a symbiotic relationship that enhances the overall immersion.







5 PERFORMANCE OVERVIEW

Sequence





Environment capture \slash Abstract to figurative \slash Immersion





EVOLVING ENVIRONMENT

The crescendo of the performance evolves from an abstract environment, generated randomly, to 3D scans of our surroundings, in which the viewer travels and discovers places from new angles and dimensions. This approach permits us to scan new buildings and locations, incorporating them directly into the show. Each performance transitions from abstraction to reality, offering a unique experience every time

ARCHES - ST. PIERRE CHURCH [GENEVA]

For the first presentation at the Mapping Festival, we chose to create a scan of the St. Pierre Cathedral in Geneva. We took 2,500 photographs of the building and generated a point cloud using photogrammetry. This technique enabled us to create a seamless transition from abstract arches to a flying immersion through the arches and candelabras of the cathedral.

PERCEPTION OF SCALES

Using LIDAR scanners, we have started to build a library of places, objects, and venues that we can incorporate into the journey. By mixing elements and parts of scans and creating transitions between 3D volumes, we alter the perception of space and the notion of scale, creating a new dimension of perspective. This blending of different environments and scales enriches the performance, offering a continuously evolving and immersive experience. **PERFORMANCE OVERVIEW** Real time / Live controlled journey



Working in a real-time setup enables us to create a unique show with every performance. This dynamic approach allows us to manipulate the programmed content and shaders as if they were musical instruments, responding to the live energy of the moment.

We believe that this method fosters a more organic and dynamic experience. The spontaneity involved introduces unplanned surprises and imperfections, which bring a more human-like quality to the performance.

Moreover, this flexible workflow empowers us to tailor each performance to its specific setting. We can modify the spatial dynamics and adapt the visual and auditory elements to suit the unique characteristics of each venue. This adaptability also means that our performances can evolve over time, incorporating new ideas and techniques as we continue to explore the possibilities of real-time creation.

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Researches



AUDIO TO VISUAL, VISUALS TO AUDIO

In Captures, spaces are scanned while their sounds are recorded on site, to be fully integrated into the work. These sound fragments are placed at their exact positions in the virtual 3D environment, becoming spatial sound objects. The system is already designed so that the movement through the virtual world matches the fixed position of the speakers in the physical space. This reinforces the immersive quality of the piece and creates real audiovisual captures of the direct environment — one of the key aspects of the project.



Researches





THE PLACE INSIDE THE PLACE

Captures also evolves as a growing collection of places and objects, each linked to its own field recordings. This living archive becomes a playground where elements can be recomposed and remixed, shifting scales and perspectives - tiny objects stretch into monumental forms, familiar places dissolve into immersive, unknown environments. By embracing the full range of immersive possibilities, Captures constantly reshapes perception and experience.

Each time the piece is presented, a 3D scan of the hosting venue itself will be integrated into the performance. This scan becomes part of the visual and sonic material, allowing the space to reflect back on itself, blurring the line between the venue and the artwork. With every new location, the catalogue expands and mutates, ensuring that no two performances are ever the same.





Researches



LAST PART - CLOSER TO REALITY

In Captures, the system is now able to process high-resolution point clouds, handling up to 1 million points compared to the 800,000 we worked with before. This allows for high-quality renders directly from these dense captures.

In the final part of the performance, the visual progression moves closer to reality, with high-resolution scans seamlessly integrated into the scene. Shapes gain in precision, gradually becoming more recognisable and detailed. This shift reinforces the crescendo, bringing the audience from abstraction to a more tangible presence, where digital space and physical reality begin to overlap.



[TECHNICAL SETUP]

Softwares & Audiovisual Links





A/V PROGRAMMING

«Captures» is built around a custom software system programmed using TouchDesigner, Ableton, and Max MSP, with communication facilitated via the OSC protocol. This node-based process provides immense flexibility, allowing for continuous evolution and variation within the project.

This setup enables us to incorporate noises and random elements, dynamically altering spatialization, visual components, and sound. Additionally, it allows for the control of various elements using MIDI controllers and sound reactivity, enhancing the overall interactivity and responsiveness of the performance.



Stage Rider

setup



BACKLINE	AUDIO	VIDEO	SET
 Stage Table covered with black curtains [W200cm x D100cm x H100cm] 10x Power Socket on table 1x lamp if the booth is not adequately lit to see the 	 Stereo high quality monitor speakers placed on the ground Stereo high quality FOH sound system with subwoofer 	HDMI connection to the video setup or LED screens	• 60min • 60min • 60min

T UP

nin for the installation nin to test the performance nin for adjustments



[ADAPTABLE FORMATS]

17 ADAPTABLE FORMATS

Different immersive setups / Procedural integration

Our performance is programmed on a procedural system, allowing it to be easily adapted to various screen and audio setups and VR systems.

While the project is designed with an immersive approach in mind, it can also be effectively adapted for 2D projections with a stereo sound system.

For live performances, the system supports a maximum resolution of 10,000 x 1,800 pixels [18 million pixels].

If the setup is not adapted for live performance, exported sequences can be produced for any space [max. 20mio pixels].



Rectangular - 2D

3D Preview



3D Preview







21 PERFORMANCE PREVIEWS

Video capture



EXTRACT [3min26]
https://www.youtube.com/watch?v=84_nuGlM_MM





[ECHOES OF ARCHS]

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