BORROWED SCENERY

借景

A VIRTUAL REALITY EXPERIENCE

Weidi Zhang | 2018 Fall

Inspiration :: Artificial Mountains

My hometown, Suzhou, is a historical city in China famous for its meticulously designed classic gardens. Artificial Mountain made of rockery is the backbone of the SuZhou garden.

The features: LEANNESS LEAKING PIERCING AND CREASES 瘦漏透

Borrowed Scenery is the principle of "incorporating background landscape into the composition of a garden" found in traditional East Asian garden design. The term borrowing of scenery is Chinese in origin, and appears in the 17th century garden treatise Yuanye.

The Art of garden rockery of suzhou lies in the priciple of "blurring the line between the artificial and natural" "securing the interest by following the natural law " and "a small slope is multifarious and each piece of stone represents an emotion".

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shizilin, Suzhou, China

Visual Inspirations :: Form and Shape

Joan Lurie

Vilde Rolfsen

Hung Xu

Borrowed Scenery

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This VR experience transforms landscape of my surrounding in LA into the form of articial mountains in suzhou to create an autobiographical displacement. Borrowed Scenery (originally from China) is a strategy of incorporating background landscape into the composition of a garden. I incorporate this idea into spatial design of this VR experience to create volumes out of void. The objects in this virtual world is sculpted based on the photogrammetry data (pointcloud) I collected from the landscape of my surroundings. I visualized the raw data by mapping organic models of Chinese strokes to different positions of photogrammetry data (xyz). some materials of those objects are generated based on the exact positions of surface points on photographs, while the others are distortion and manipulations of photographs and digial paintings by utilizing surrealism methods. I perceive my current experiences by collecting photogrammetry data and sound recording which are tangled from my personal memories traditional Chinese motifs and linguistic subtleties from my hometown. This project aims to blur the line between nature and artificial, positive and negative and memories and perceptions by using experimental data visualization and virtual reality world building strategies.

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Technical Aspects

::Photo Montage in space

::Photogrammetry / Data Collecting Process

::Sound recording -[in progress] and Sound Manipulation

::Digital painting and Photography digial processing

::Visualization of photogrammetry data [map different objects to specific position of the xyz data)

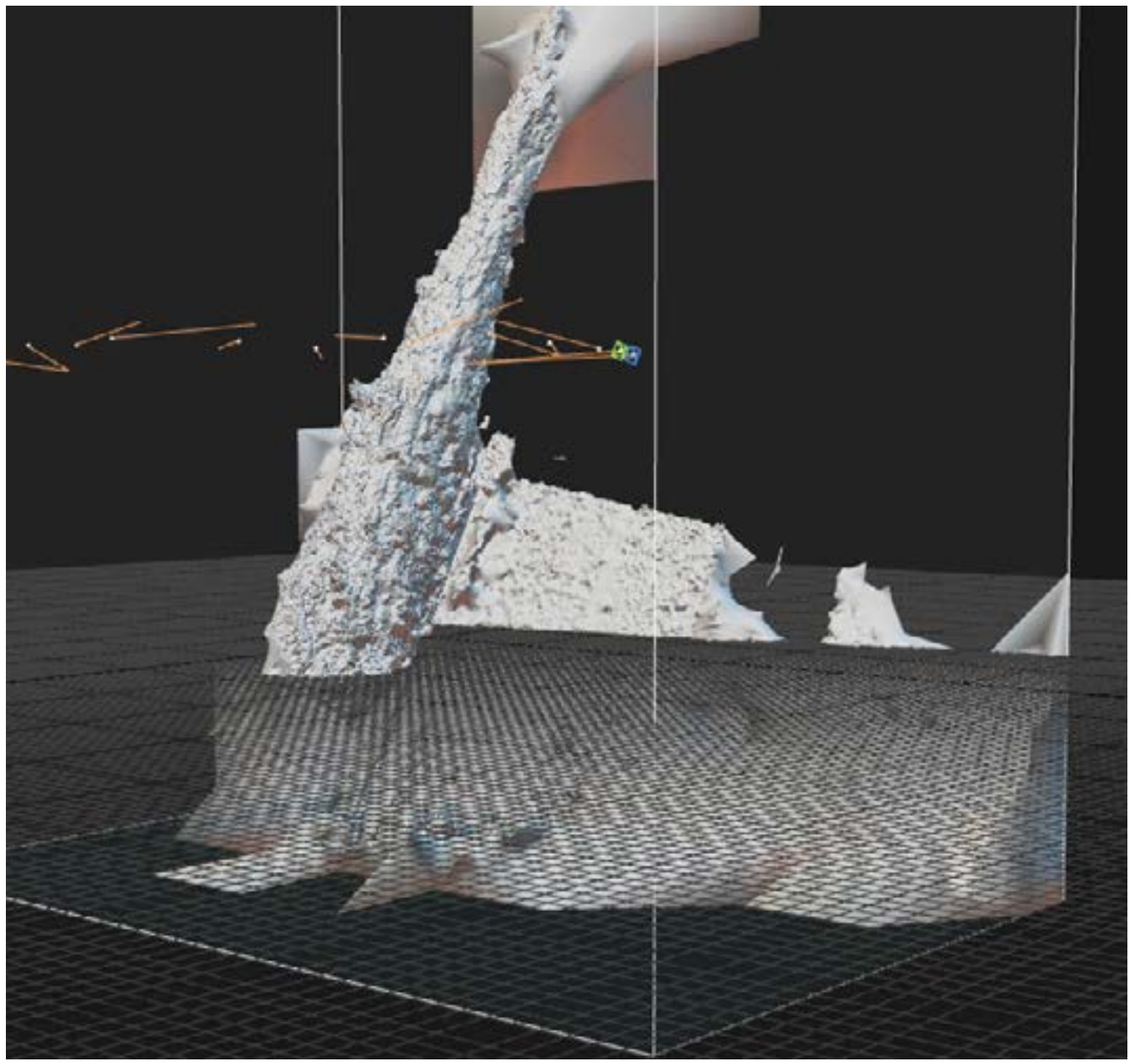
Photogrammetric data with a dense range data in which scanners complement each other. Photogrammetry is more accurate in the x and y direction while range data are generally more accurate in the z direction. This range data can be supplied by techniques like LiDAR, laser scanners (using time of flight, triangulation or interferometry), white-light digitizers and any other technique that scans an area and returns x, y, z coordinates for multiple discrete points (commonly called “point clouds”)

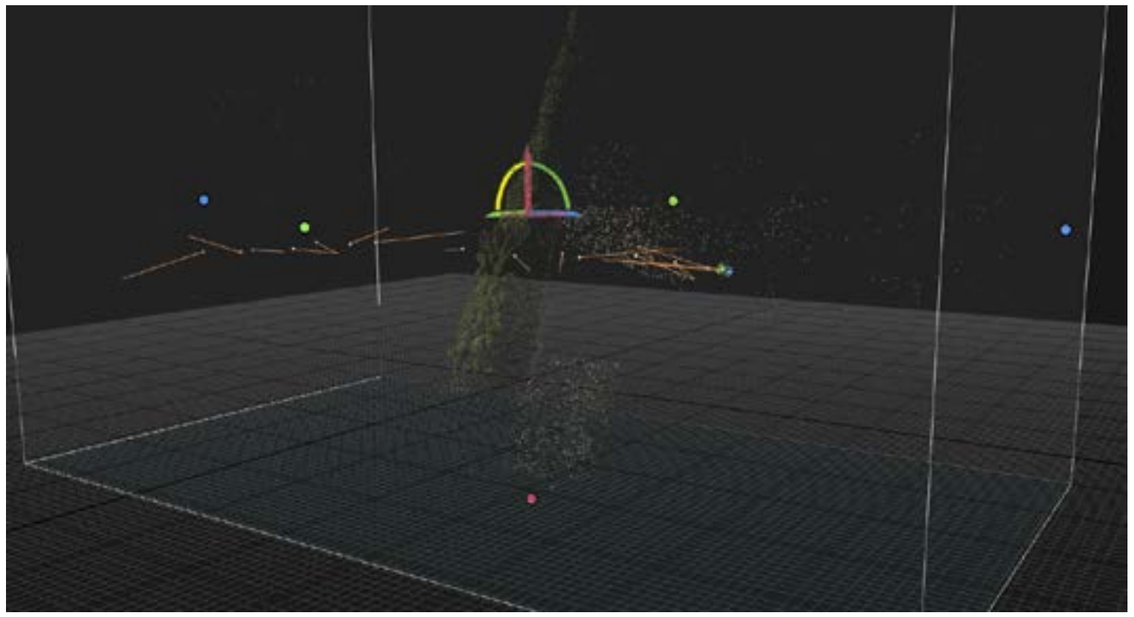
:: Software Unity 3D / C# / Excel / C4D / Maya / Alembic / Capture Reality / adobe Photoshop / Adobe Audtion

Raw Data ::

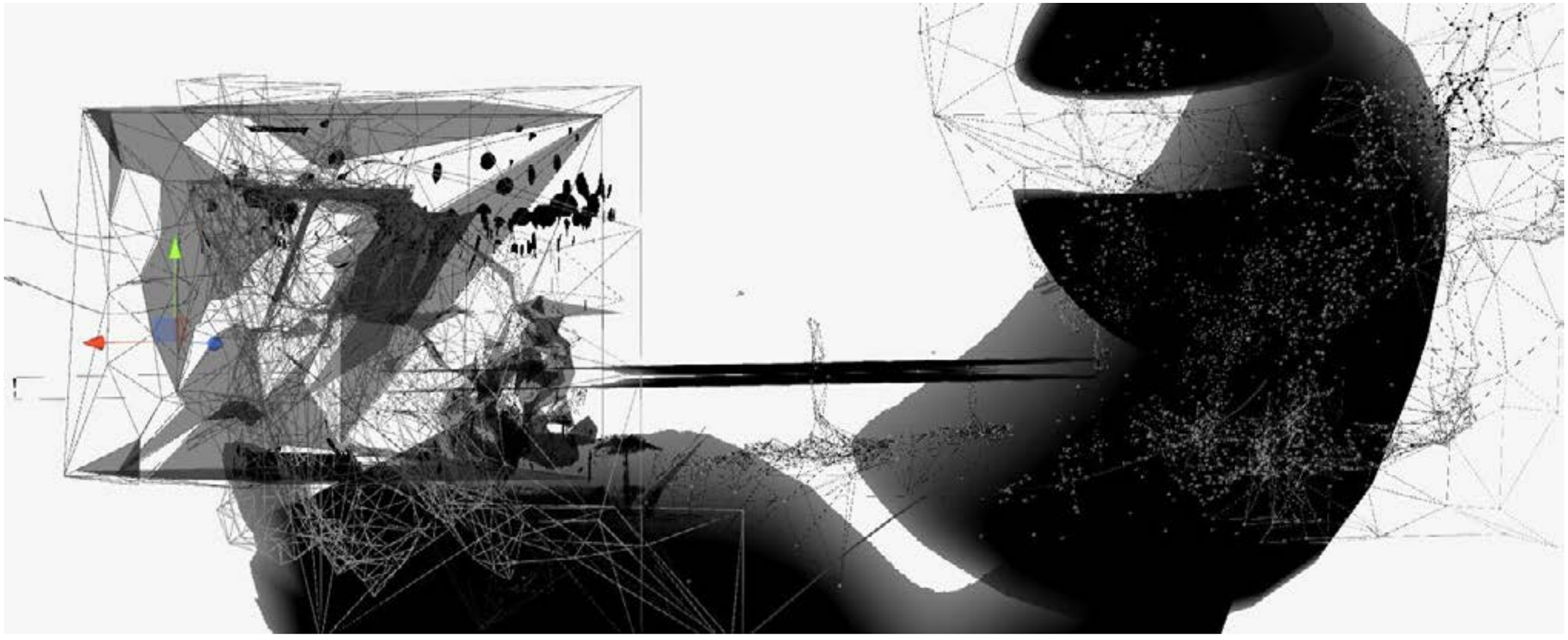
```
0.17066026 0.30861997 2.3024039
0.41706815 -1.8834791 -0.11982961
0.31045621 -9.6416664e-002 1.0936118
-0.10170369 -2.6758495e-002 2.3562593
0.54259194 -0.51747784 0.8984401
-0.32972213 -0.30039123 2.0650746
-8.456637 3.0011785 1.8383995
0.41109585 -0.73025433 1.1501303
0.70912378 -1.2097193 -3.0732412e-002
0.33271061 -0.51013183 1.5585095
0.54440403 -1.5305124 0.29947156
0.66291583 -0.85450904 0.90149129
-0.11950694 0.73303908 3.153474
0.1968313 -1.1588594 0.99664647
-1.2548543 4.5880363 3.0073848
0.57743752 -1.6162304 3.8585058e-002
0.78485799 -1.2668829 -6.8359083e-002
-0.84894475 1.275218 -1.7820497
0.54993261 -1.0890679 0.65420698
0.4643928 -0.5259562 0.97306993
0.22392594 -1.8932496 -7.245047e-003
0.20606962 0.22430498 2.25548
-1.3573705 0.5573903 -1.8770054
-0.33286199 0.57541212 3.1200004
0.82911439 -1.4990955 -0.33002045
0.26574527 6.7862109e-003 0.78572029
0.21624746 -0.38591359 1.8001423
0.83622746 -1.4899747 -0.13443149
0.29001545 -1.1065192 1.0044215
0.23459647 -1.5025342 0.65171537
0.60915448 -0.96212112 0.58039442
-0.13302899 0.28553527 2.7479349
0.39409771 -1.6250585 -1.3467581e-002
0.64209323 -1.393913 2.4283315e-002
0.15612155 -1.5547856 0.54266688
0.17231014 -0.26017816 1.9805313
```

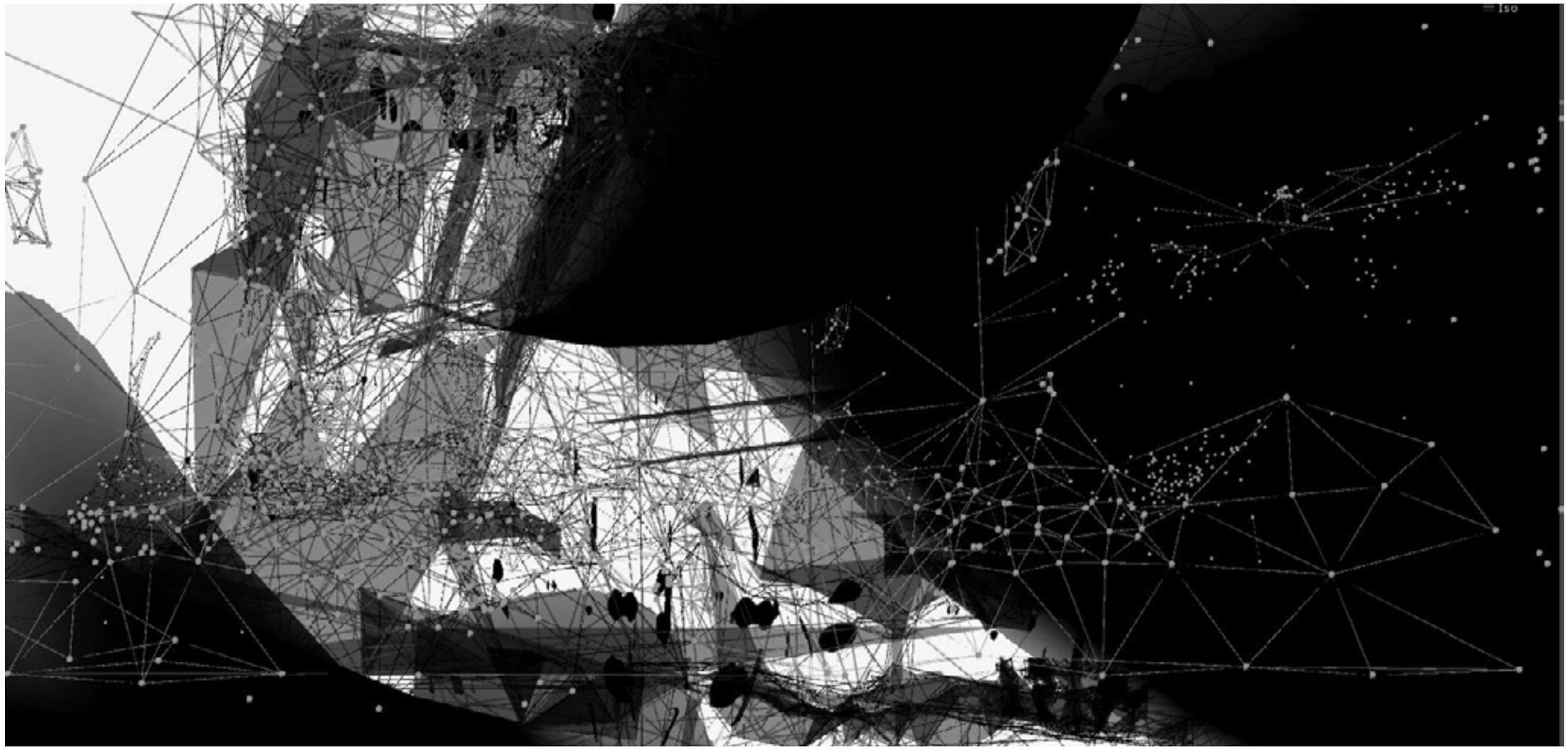
Portion of photogrammetry data I collected ---------- into xyz file





First Attempt ::





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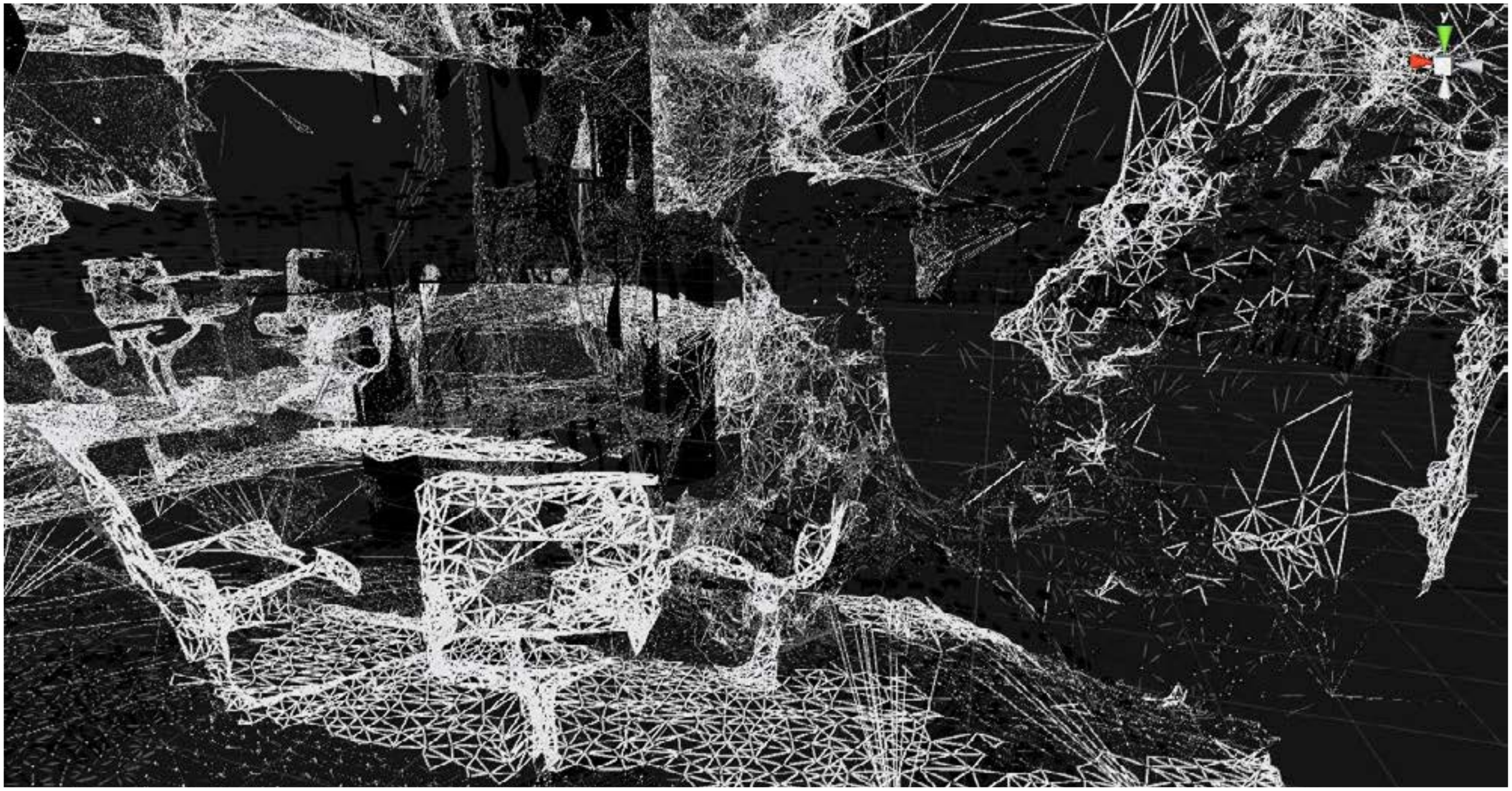
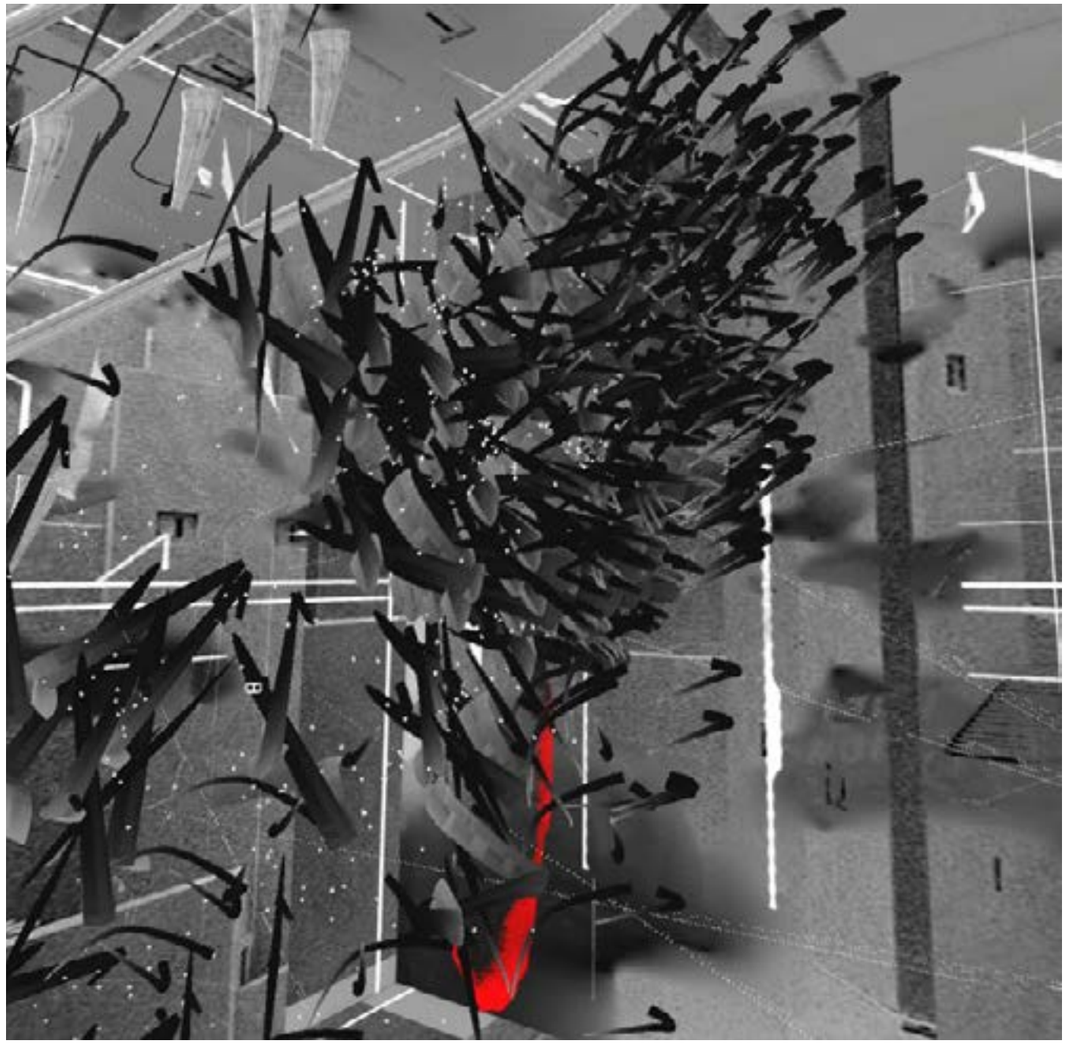
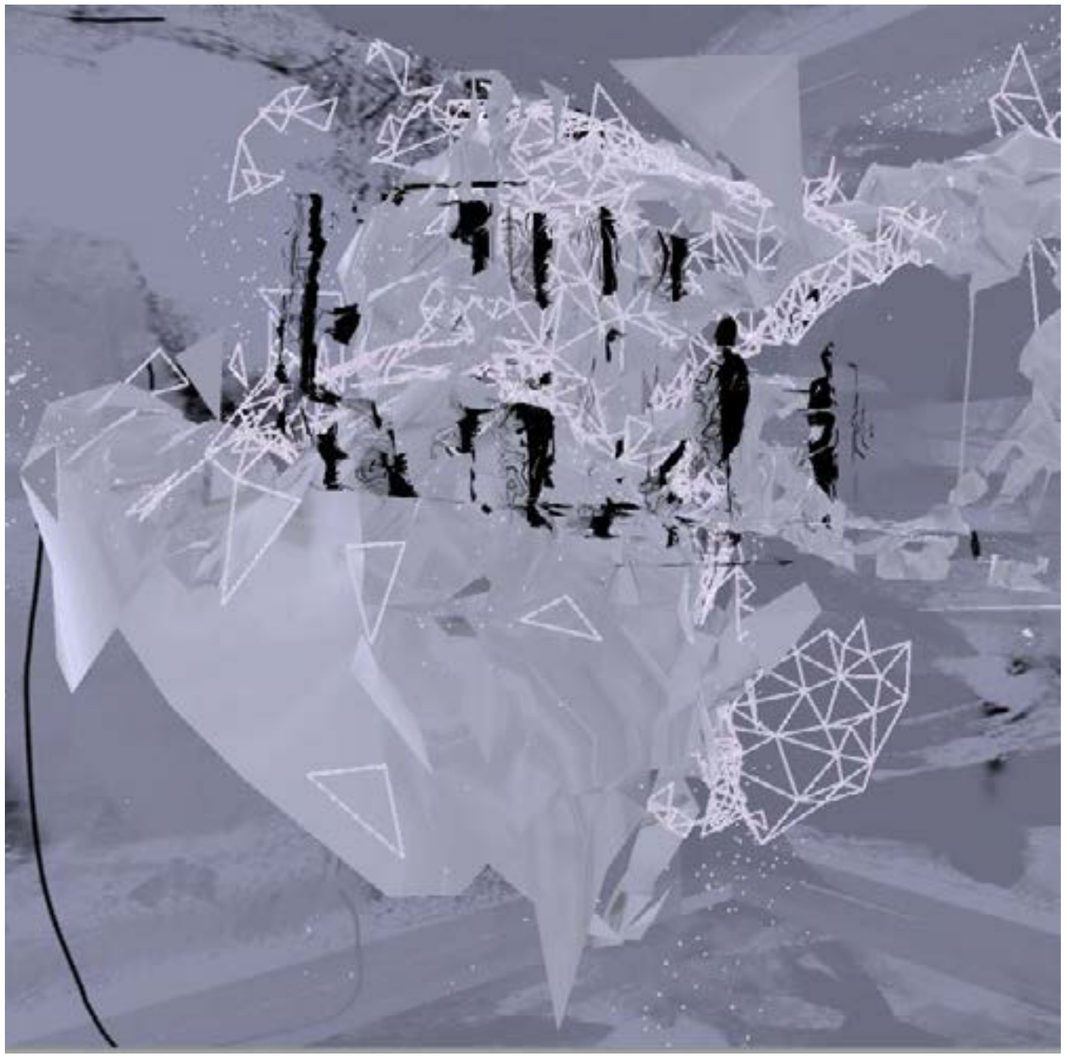
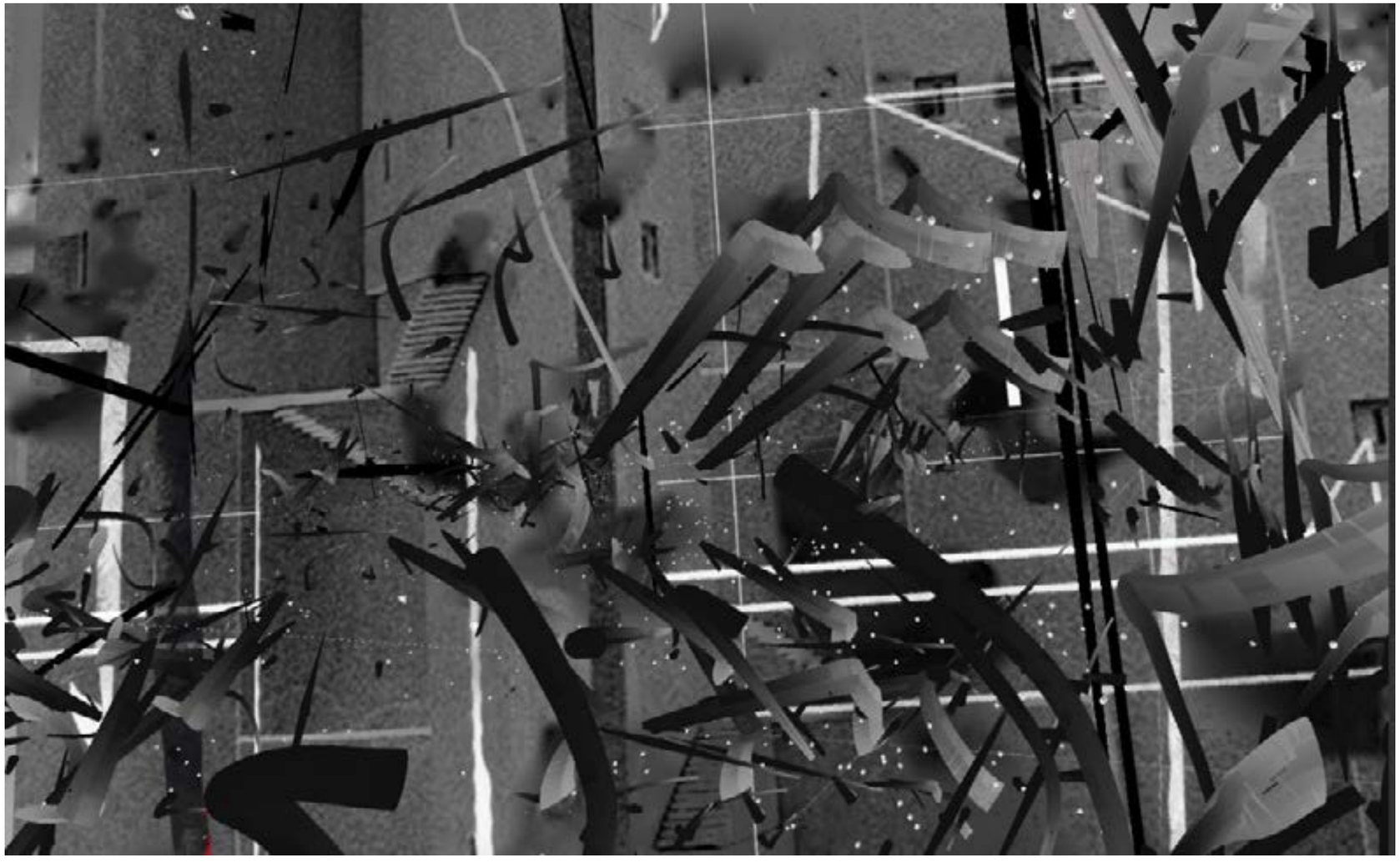


Second Attempt :: Experiment with materiality







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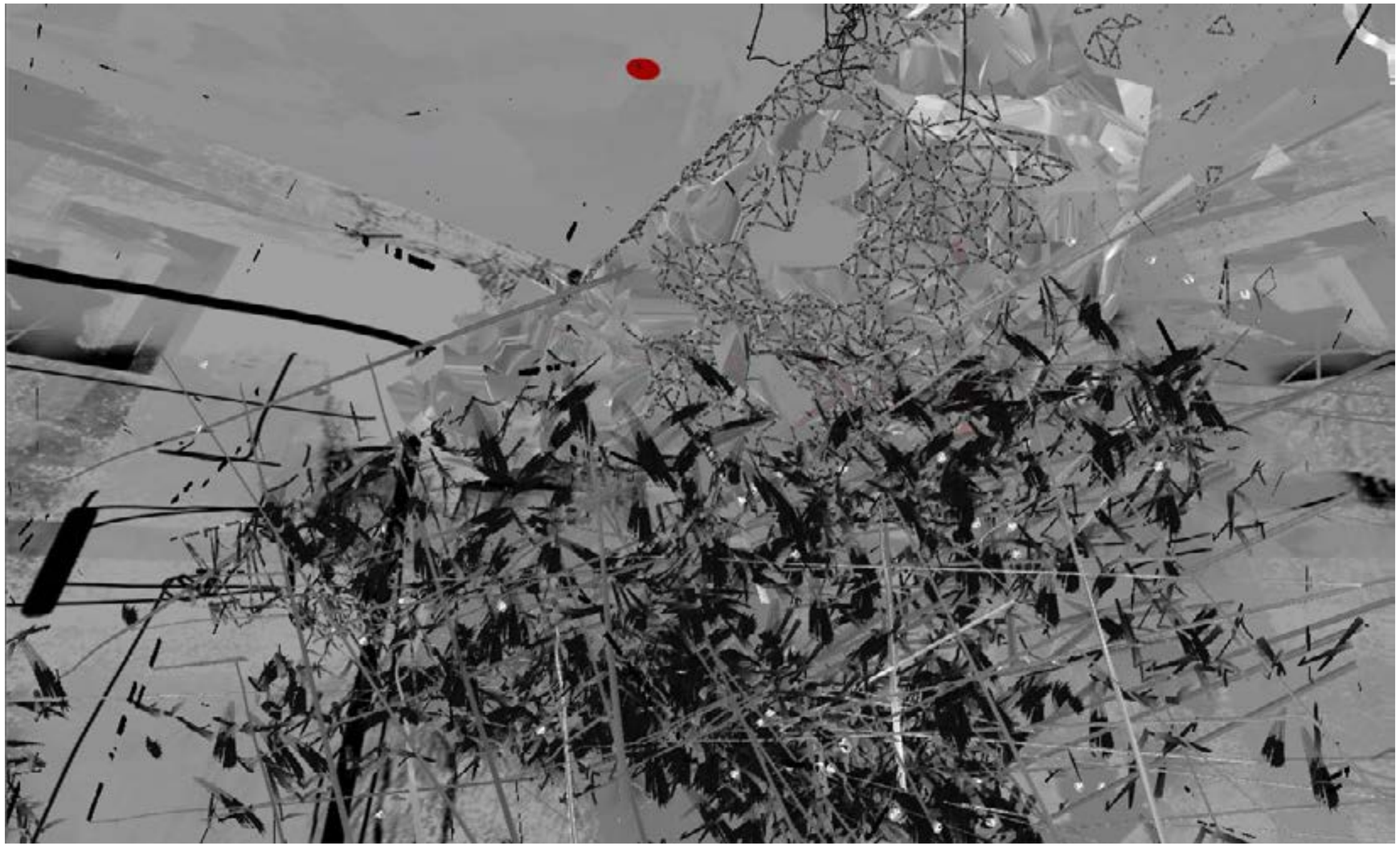

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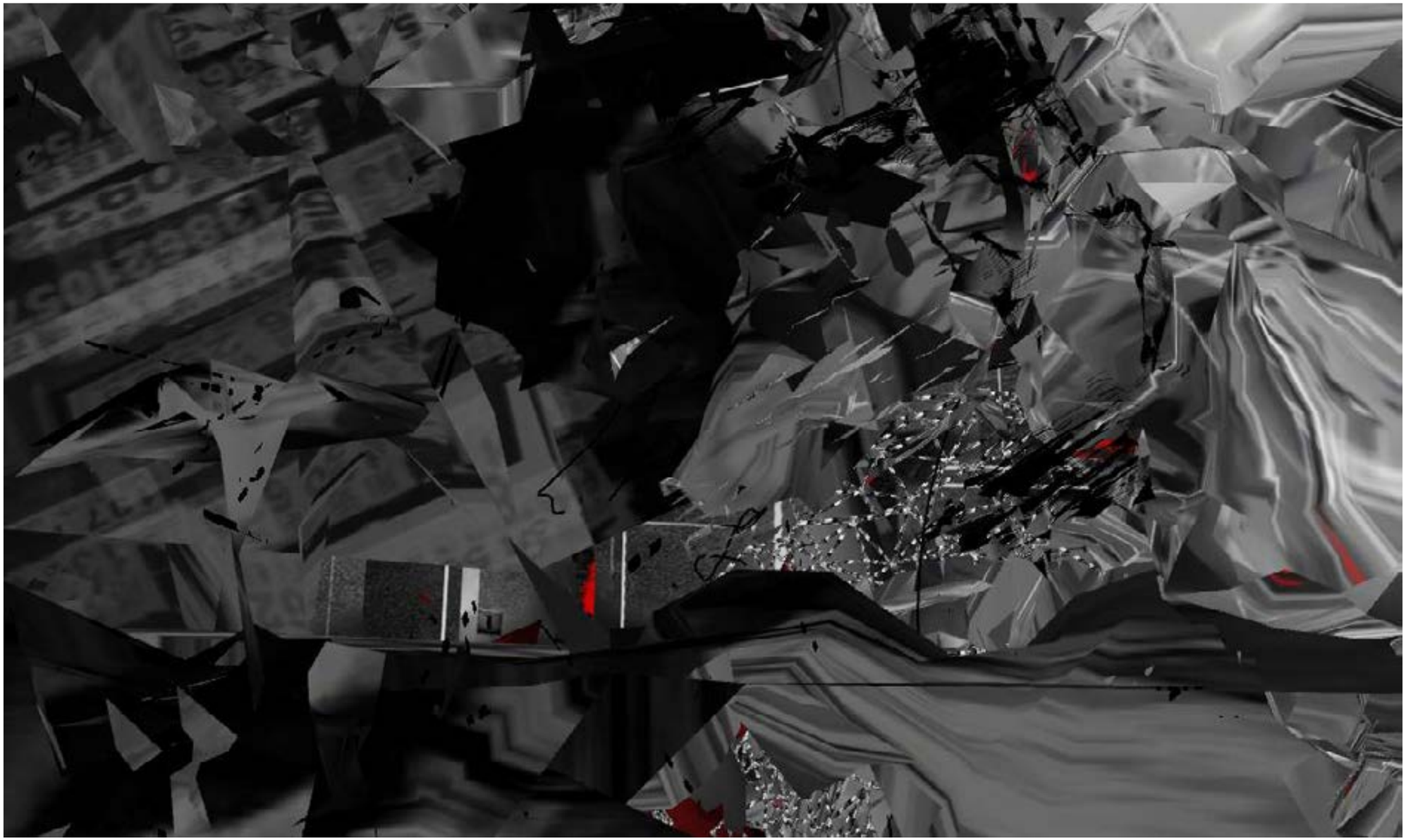

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Further Exploration:::

:: Build more scenes, sounds, imagery , etc

:: Potential:
Connect my VR world with Rodger's Reinforment Learning System to create a guided system

Reference:

http://landscapevoice.com/the-humble-administrators-garden-%E6%8B%99%E6%94%BF%E5%9C%92/