



LUCID  
WASTELAND

AJIRI OKPOBRESI



## WHAT ' S B E H I N D

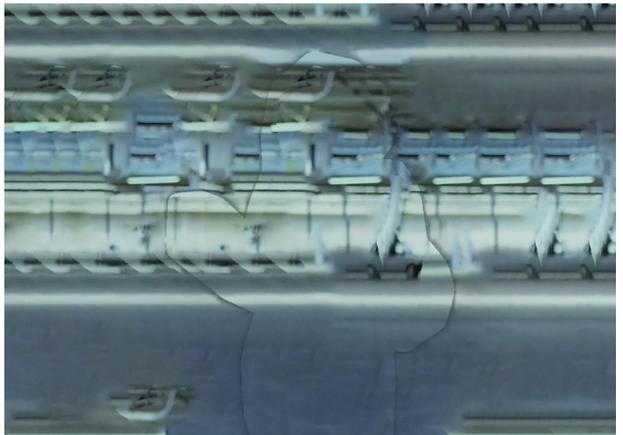
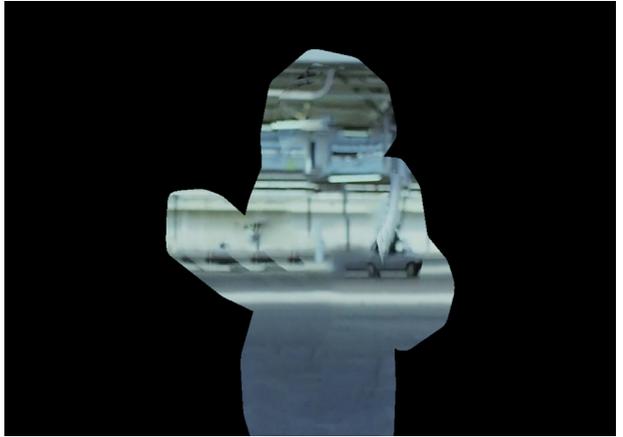
My search to understanding how computers understand space started by seeing how a computer program would fill in emptiness. When we want to know what is behind a certain object we can remove the object or relocate ourselves to get an new perspective. But when a program is given an image it can't do either. It can delete an object, delete its pixels, but it would be left empty.

There is an function in photo and film editing software that can fill that void in a content aware way. Generating new pixels based on its surrounding ones. This is how a program looks behind. It dreams up a new space. Sometimes accurate to reality, but most of the time merely a distorted imitation. These errors are what interest me.



I tried experimenting in a similar way on drawings. I drew a frame out of the reference footage, so I could later compare it to its video clip counterpart. These simplified representations of space generated an abstract drawing of a room.

What was generated could be considered as almost anything. It didn't generate a floor or column that would be hiding behind the actor. It generated something entirely new, that didn't fit normal typologies.

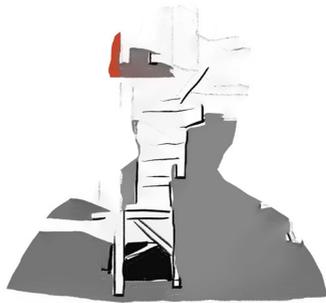


## WHAT ' S B E Y O N D

The next step was to see what the computer would generate out of its own imagination. The program was given the cut-out it created in the previous steps. Based on this already morphed space it would dream up the entire room. In the case of the first try, the new image evokes the same feeling of the original room. Its repetitive and rigid nature is captured. It feels familiar. Familiar yet strange.



Just like with the first try other renditions came out very deformed. It looks like the program was looking through a kaleidoscope. In this example the columns are disrupted. They are not one continuous architectural element anymore. This representation does not confine to the rules of physics. The previous image did feel more realistic.



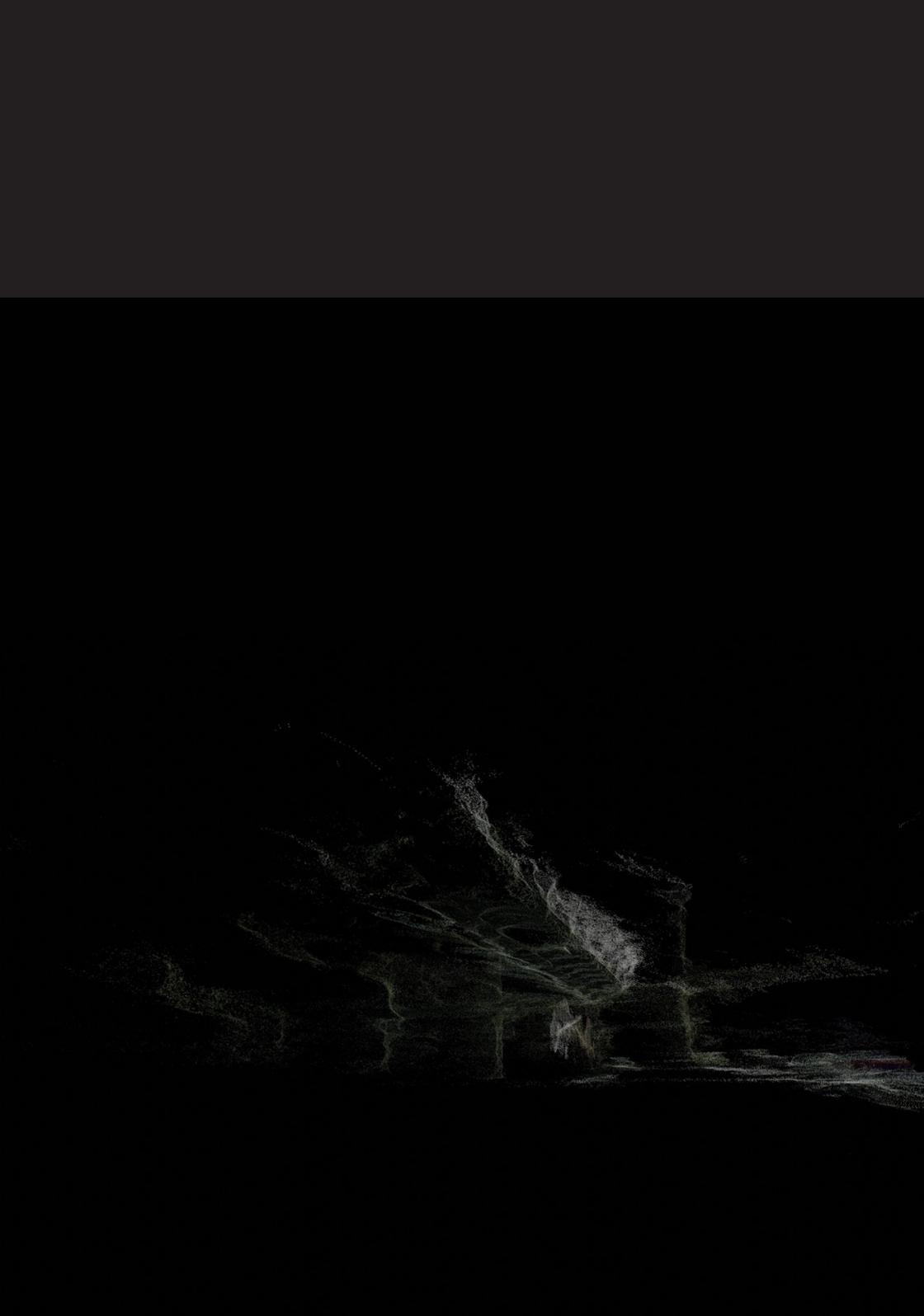
Similar to its film counterparts the image is very distorted. Because of the limited information an illustration brings, this generated image is the most abstract. It doesn't even look like the original drawing anymore.

This is what I call the program lucid dreaming. It vaguely remembers a place but can't put everything in the right spot. It dreams up an entire new space where the floor and pillars morph in each other. One where up and down, left and right are not important.



## THE TRANSPARENT WASTELANDS

The next step in my process to understand how computers see and understand space was through the use of point clouds. I chose fragments out of the reference footage and other pieces of cinematography, that evoked the idea of a lot of depth. These were mostly panning shots over landscapes and through large architectural structures.



I converted these video fragments into images. And in turn these were fed to a software that would generate point clouds out of them. Every pixel was given coordinates and constantly compared to each other. In the end I got these see-through landscapes that stretched for as long it had information. But all of them would end in nothingness.

The more I experimented the more I understood how the program analyses and reconstructed the space. What was remarkable was that if I gave the program more frames, the point clouds became more detailed and accurate. But when I introduced elements such as trees, the point clouds became less detailed and chaotic. So, I came to the conclusion that the high frame rate original footages was best fitted for further experimentation.



## DRAWINGS WITH INK AND LIGHT

I tried recreating these unique landscapes by drawing them. I wanted to reach the same level of weightlessness and transparency. In the first tries I drew the landscapes using small dots in ink. I made several versions and through photoshop inverted the colors. I also layered the different drawings on top of each other to gain a level of depth. It felt similar to the point clouds, but it was a less accurate form of its computer made counterpart.



Next, I tried horizontal lines. With this technique I did achieve some denser parts that could represent the hills a little bit better. But this method felt heavier and was not the feeling I was going for. It became harder to read as a three-dimensional space.

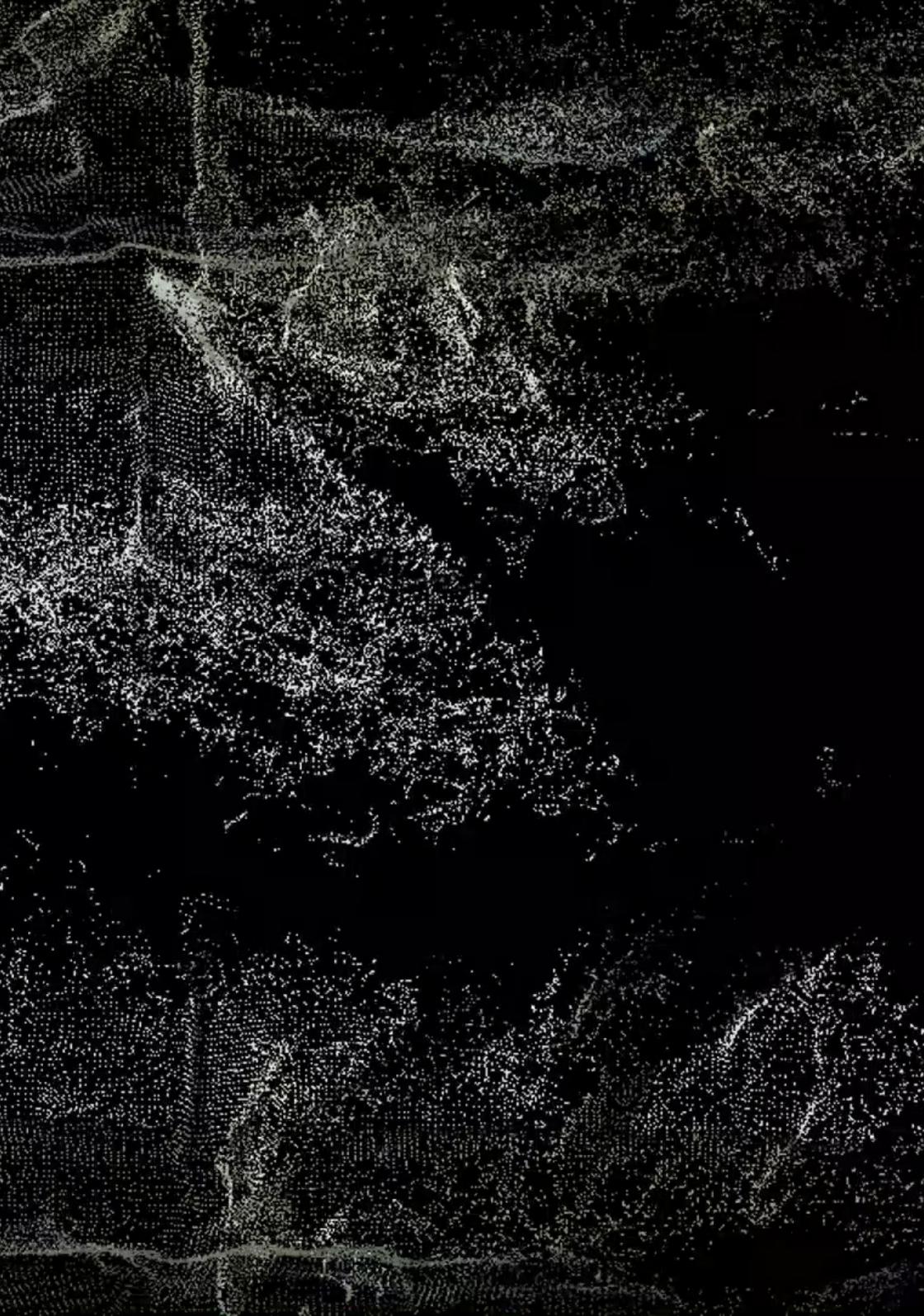


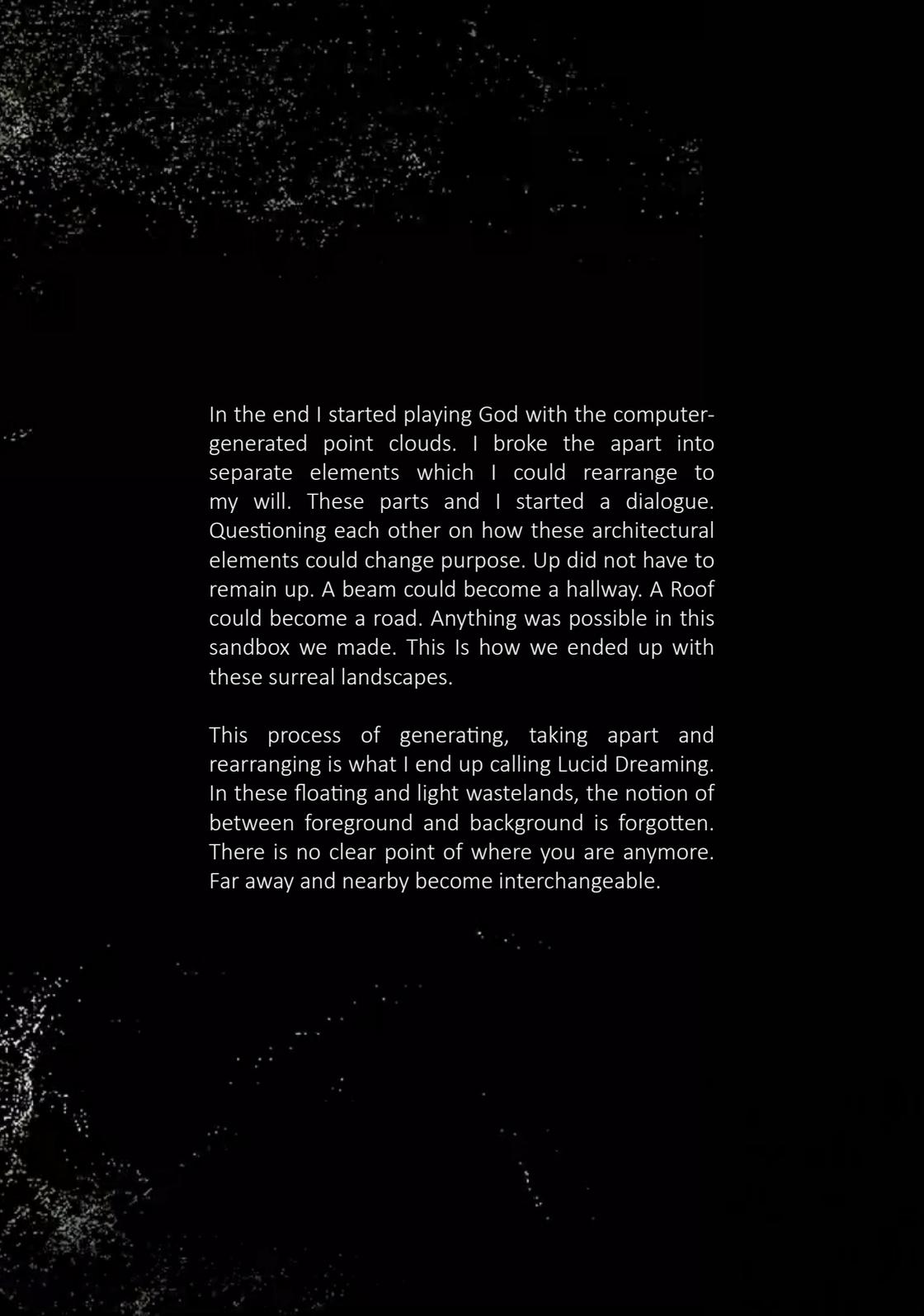
One of my final traditional renditions was to use light. I created the image by punching tiny holes into thick paper. The further away the closer is positioned the holes, the closer the further apart. I tried to capture the shadow at first, but this was too complicated because of the size of the perforations.

What I tried next was to shine a light behind the paper in total darkness. Again, this was difficult to capture in a photograph naturally I had to enhance the contrast in post to achieve this look. Because of this I abandoned the traditional way of drawing and relied on the computer-generated images for further experimentation.









In the end I started playing God with the computer-generated point clouds. I broke the apart into separate elements which I could rearrange to my will. These parts and I started a dialogue. Questioning each other on how these architectural elements could change purpose. Up did not have to remain up. A beam could become a hallway. A Roof could become a road. Anything was possible in this sandbox we made. This is how we ended up with these surreal landscapes.

This process of generating, taking apart and rearranging is what I end up calling Lucid Dreaming. In these floating and light wastelands, the notion of between foreground and background is forgotten. There is no clear point of where you are anymore. Far away and nearby become interchangeable.

