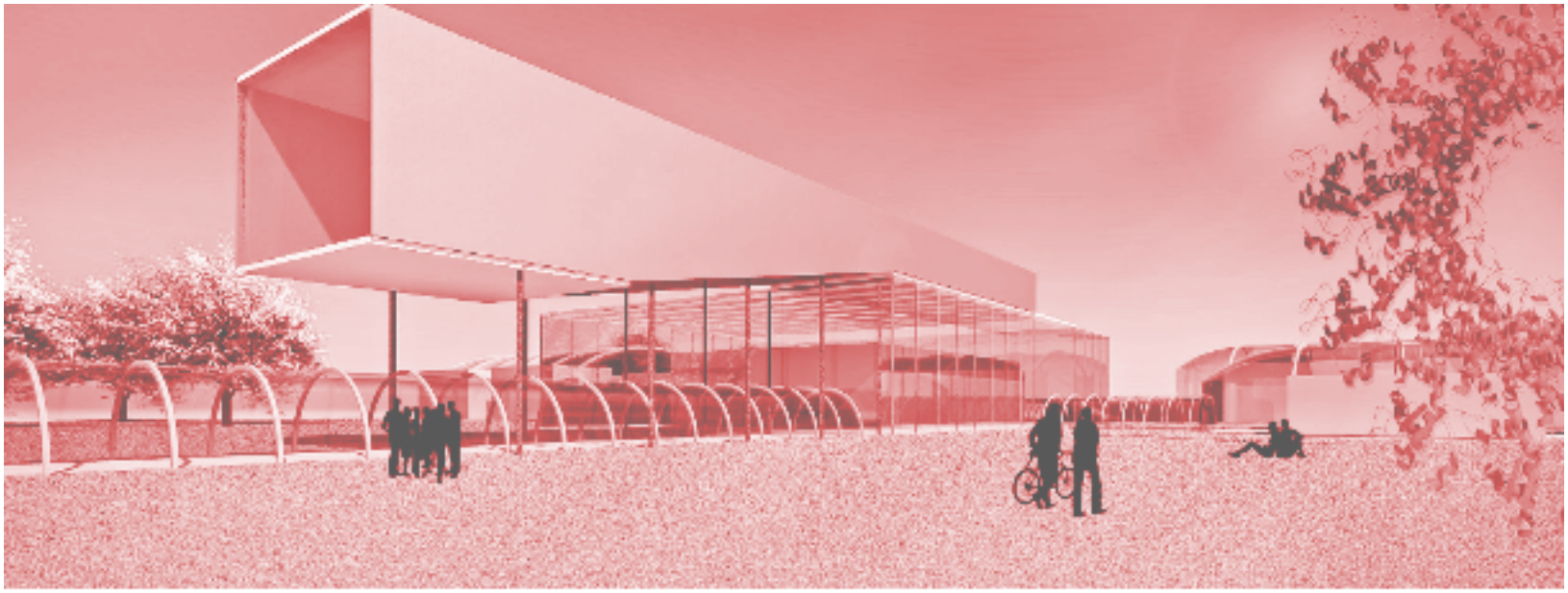
SciArt Lab Metaverse Branch

Architecture Dossier

Document 002 - v1.0 November 2017



Credits

- This dossier has been developed by Magg Architecture and the SciArt Lab as a first draft for the construction plans of the SciArt Lab Metaverse Branch.

- For more information contact Miguel Angel Gonzalez (Architect and BIM Manager) or Diego Gonzalez (Co-Founder of the SciArt Lab). You can also request more guidance or information at contact@sciartlab.com

The concept

The SciArt Lab context, history and short-term goals are described in the *document 001* ("Building a lab in Decentraland", v2.0, November 2017). Rather than explaining more in detail the previously exposed ideas, in this dossier we shall introduce the first outline of an architectural plan for the construction of the SciArt Lab Metaverse Branch.

We should start describing the conceptual framework from which this architectural proposal emerges though. As it has been previously mentioned (see *document 001*), the SciArt Lab is a Research and Development Lab for the open exploration of Science, Art and Technology.

Additionally, we can describe it as a meta-project with both conceptual and technical roots in the convergence of topics like the ones listed below:

A) Complex Adaptive Systems and P2P Dynamics.

B) Artificial Life Simulation and Cellular Automata in the context of artistic explorations.

C) Hacker/maker ideals, hand-on learning and prototyping (STEAM).

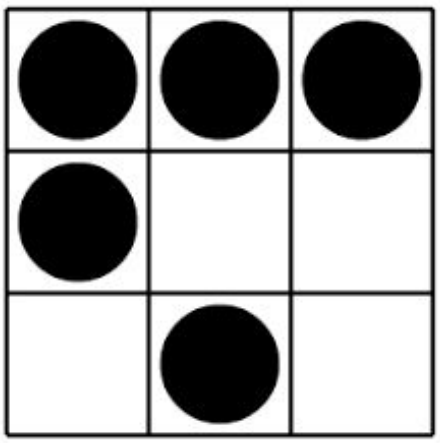
D) Multidisciplinary approaches to research and education.

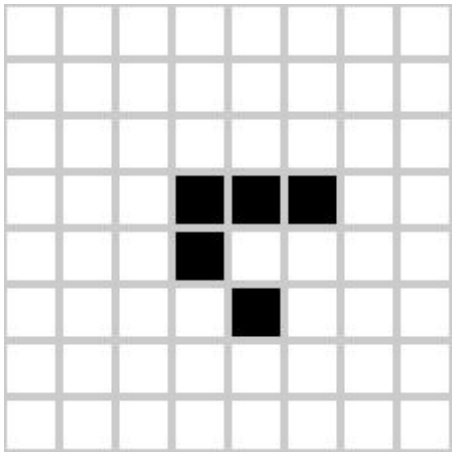
E) Heterogeneity in decentralized networks as a requirement for innovation and knowledge production.

Therefore, it would make sense if both the morphology and other visual aspects of the SciArt Lab Metaverse Branch are related with those concepts somehow. We have started a partnership with Magg Architecture to bring these ideas to life and to Decentraland. We have ended up with a concept strongly related with our logo, our goals and our mission.

Cellular Automata and Dynamic Architecture

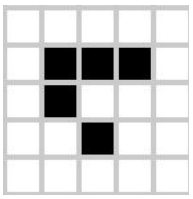
When somebody looks to the SciArt Lab logo, usually only sees five cubes without any known meaning. Some others visualize an inverted “L” and an extra shape in 3D. The origin of the logo, however, is rooted in the hacker ideals, usually represented by “the glider” shape:

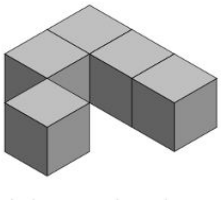




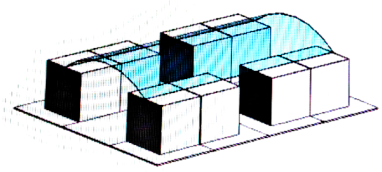
The glider is a bidimensional pattern which moves across a grid in a cellular automaton known as the Game of Life. For those who are experts in Computer Science, Math or Evolutionary Algorithms this can sound familiar. For those who don’t know what we are talking about, let’s say that it has a meaningful symbolic power in the context of the hacker culture, but also that it represents the potential of simple rules leading to the emergence of dynamic and complex patterns.

The logo of the SciArt Lab is simply a new perspective regarding the same concept. Simple cells whose local positions affect the global configuration. Bottom-up knowledge production based on simple local interactions and hands-on learning.

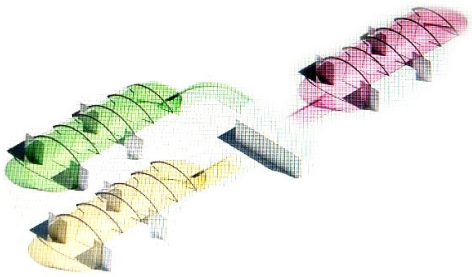




What if we take this idea for our architectural design? What if we combine modular units in a three-dimensional space and host different projects inside?



What if we mix combine permanent/temporary exhibits and immersive experiences with the distributed spaces of our *SciArtists-in-Residence* program (see *document 001*) within a dynamic grid of modular components? Would a dynamic architecture lead to a growing “organic” ecosystem of innovative production?

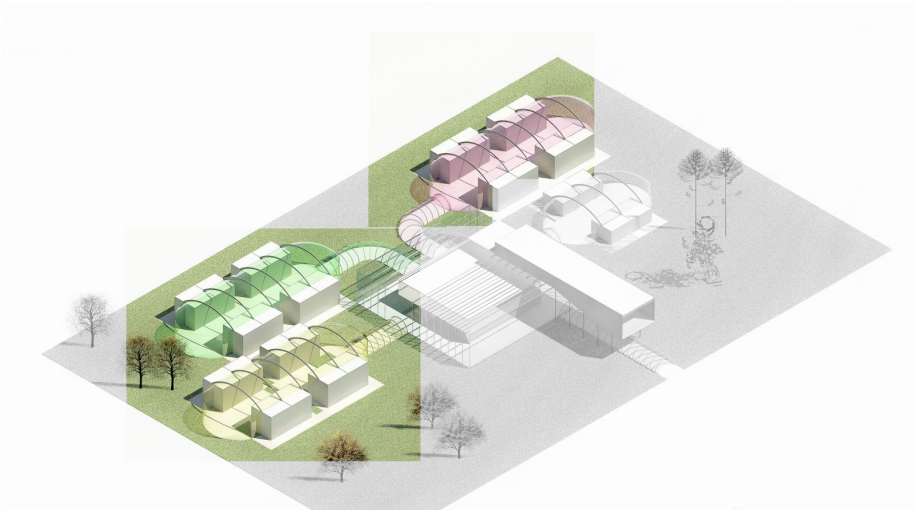


Axonometry

Considering the metaphor of the Cellular Automaton, the SciArt Lab Metaverse Branch wants to go beyond the experiments of Archigram regarding walking structures. We want to create a live and complex space that can grow dynamically within a constrained set of parcels. A building made of modular structures which can be reorganized dynamically based on specific needs to enable interactions and knowledge production, a meta-project connecting projects by the use of tubes, mobile modules and shared spaces.

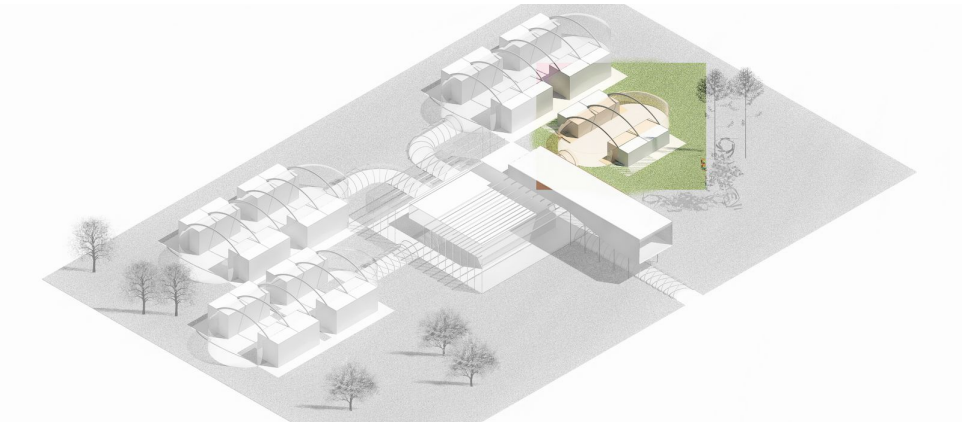
This is a general view of the initial distribution of modules within the land:

- In this scheme we can see three collaborative spaces, each one with four/eight modules to host individual projects or *SciArtists-in-Residence*.



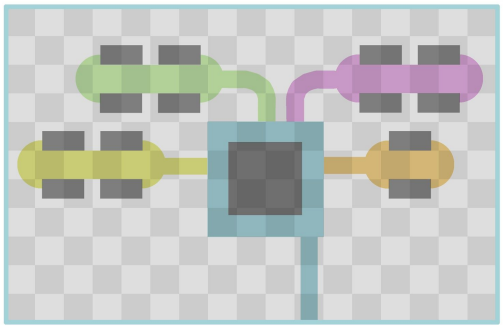
- We can also distinguish the SciArt Lab Headquarters building in which the Mol Museum, the Conference Hall and other spaces will be initially built.

- This schema also shows a preliminary idea of the Dining Hall (“The Cafeteria”) where social life events and informal meetings will take place.



- The gardens will be initially populated with trees, live sculptures and temporal outdoors exhibits. However, they could be also used to rearrange modules in the future in order to enable or disable collaborative spaces and co-creation/co-working environments.

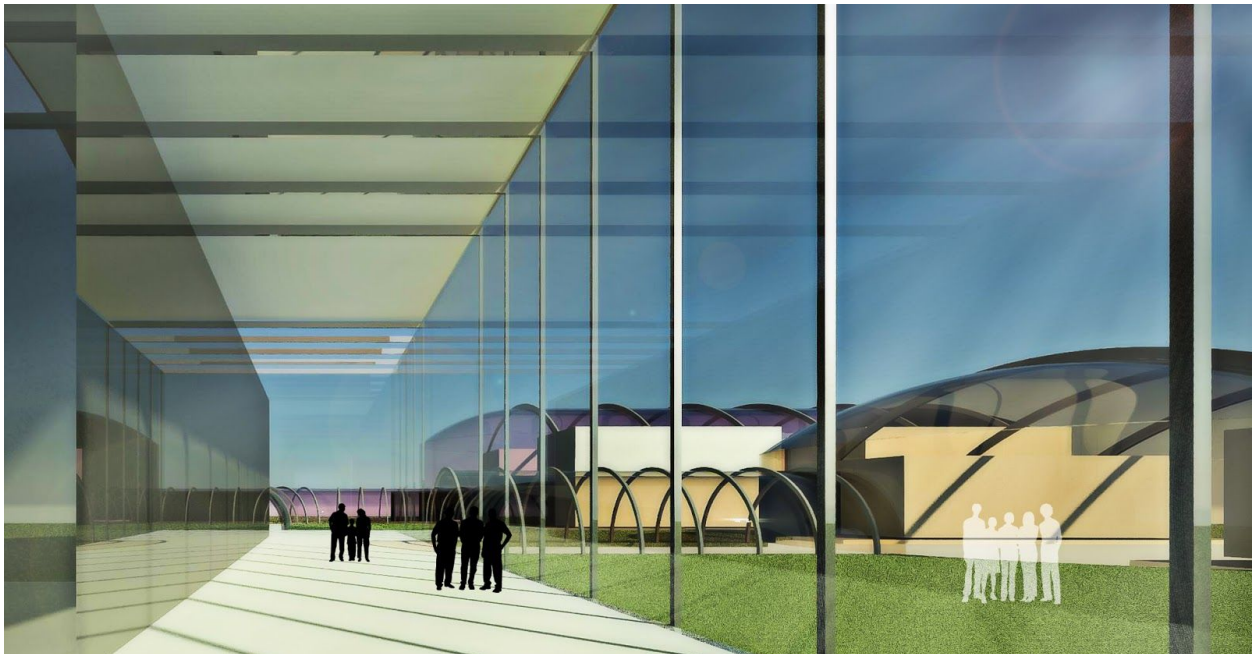
- The SciArt Lab, as a self-organized system, will evolve dynamically within a constrained environment of 18.700 m². Considering that a parcel is 10m x 10m, the complex would need a total of 187 parcels:



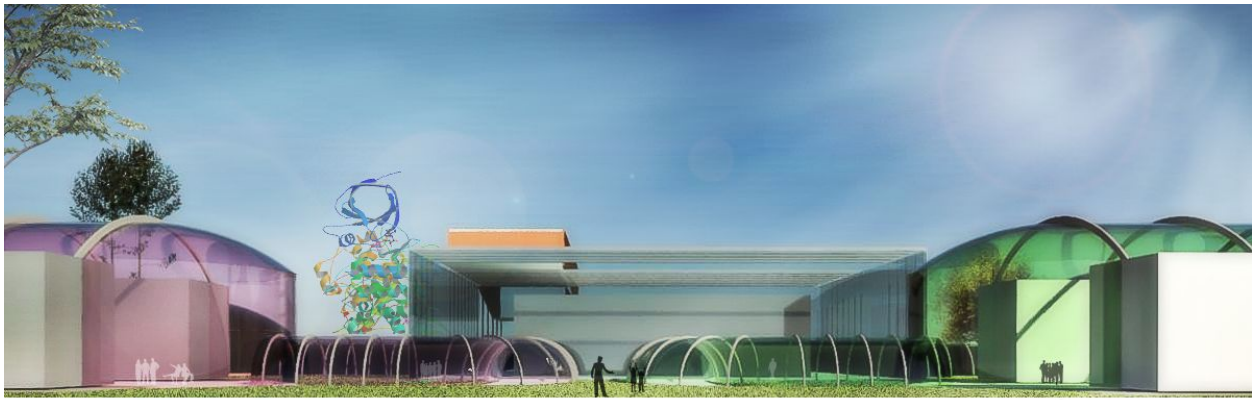
Scene Views

Main entrance to the SciArt Lab facilities

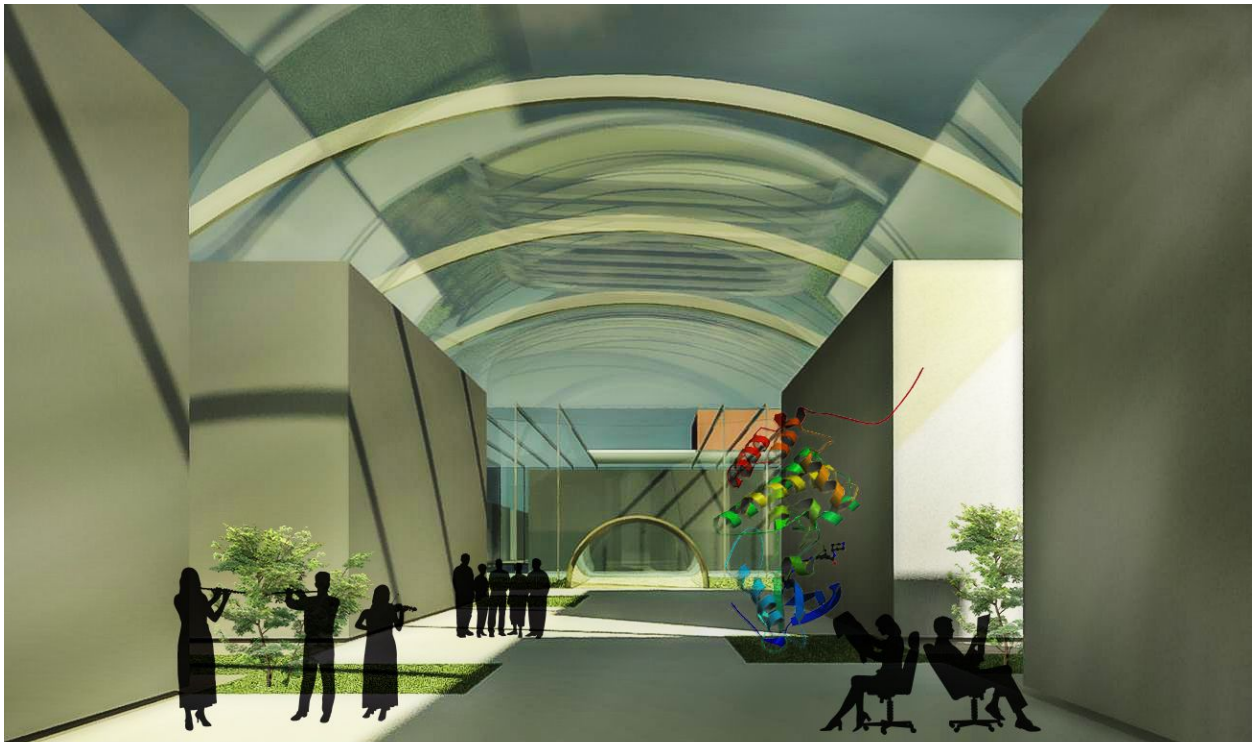
SciArt Lab Headquarters Building



Central view of collaborative spaces and "The Cafeteria"



General outdoors view



Collaborative Space for SciArtists-in-Residence

This example shows a collaborative space with four/eight independent modules sharing a central space for interaction and collaboration. Science, Art and Technology in a shared innovative place.

Roadmap

Q1 2018

- Layout of green spaces and outdoors.
- Design of modular buildings structure.
- Construction of SciArt Lab Headquarters Building (empty).

Q2 2018

- Interior design and development of SciArt Lab Headquarters Building.
- First pilot of the Mol Museum (alpha).

Q3 2018

- Construction of “The Cafeteria” or Dining Hall building (empty).
- Construction of three collaborative spaces following modular buildings structure (empty).

Q4 2018

- Interior design and development of “The Cafeteria” or Dining Hall building.
- Interior design and development of one collaborative space (pilot).
- Improvements in SciArt Lab Headquarters Building and the Mol Museum.

Q1 2019

- First SciArtists-in-Residence program: hosting the first external projects in one of the collaborative spaces.
- First pilot of the Music Room (alpha).