
Atomized (curatorial) Functioning

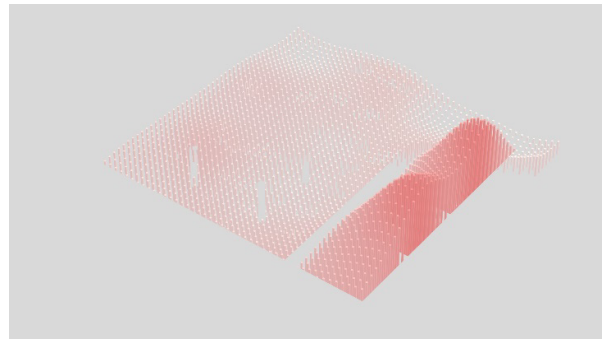
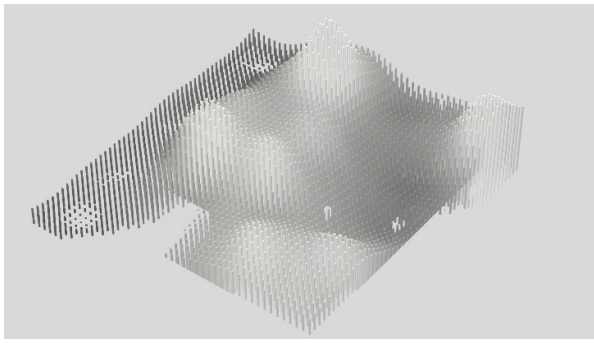
2019

Architectural software, scenography & project by fabric | ch

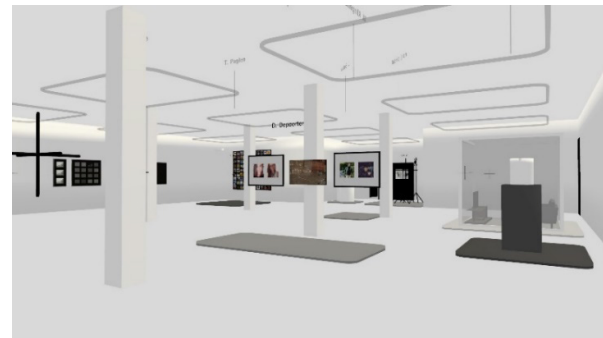
Internal research. Developed, used, customized, and presented through exhibitions: Environmental Devices at Kunsthalle Éphémère (Renens, 2018), Entangled Realities at Haus der elektronischen Künste (Basel, 2019), TASIES 2019 at National Museum of China (Beijing, 2019)

Location: Basel (CH)

- Use: custom scenography and curating generator
- AI layer for automated spatial and functional exploration, layered over base algorithmic software
- Live outputs: 3D configurations on displays of various sizes and formats (documentary screens, projections, immersive AR/VR, etc.)
- Alternative outputs in the form of dynamic instructions (enabling the control of non-visual and tangible displays, or external systems)
- Customizable saves and playbacks for subsequent uses



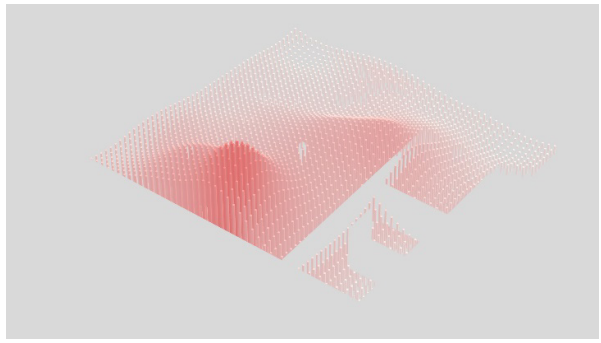
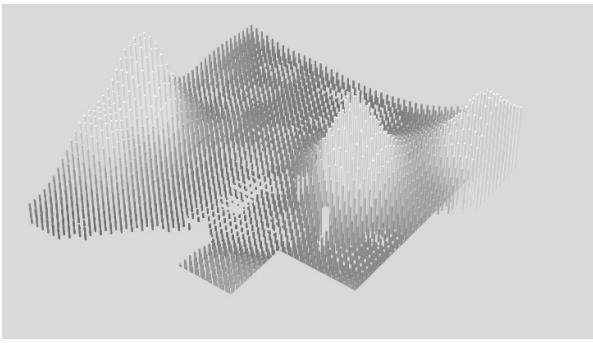
[Img. 1 - 4]



[Img. 5]



[Img. 6]



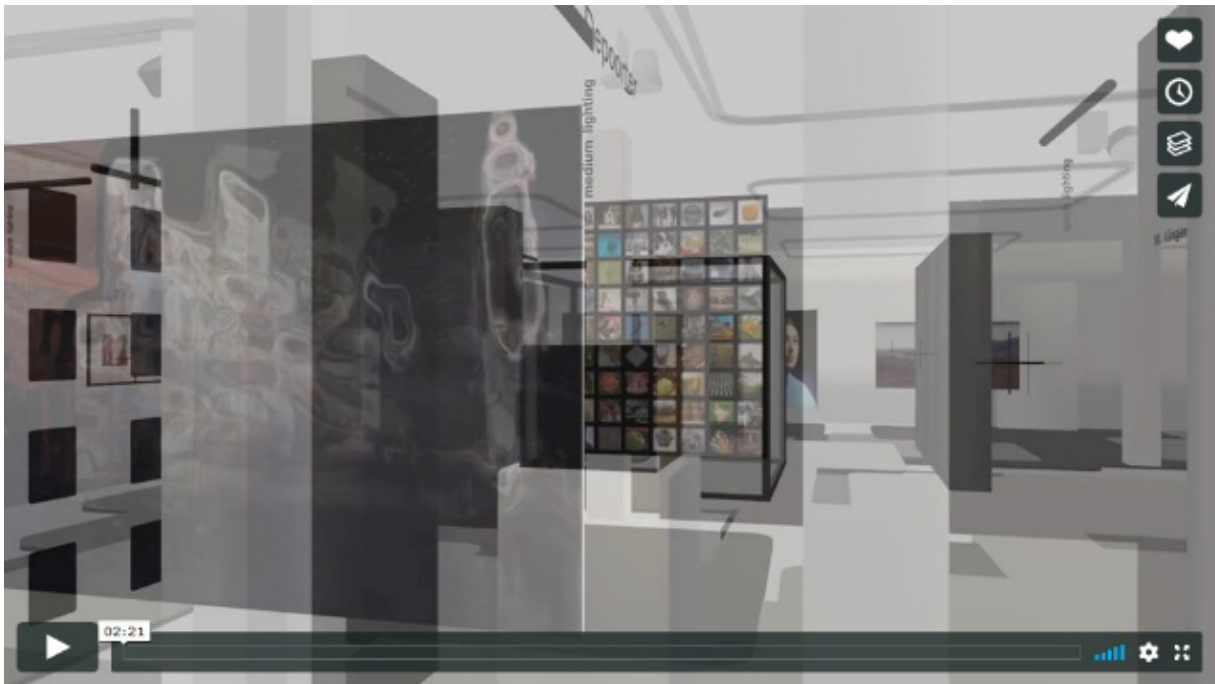
[Img. 7 - 10]



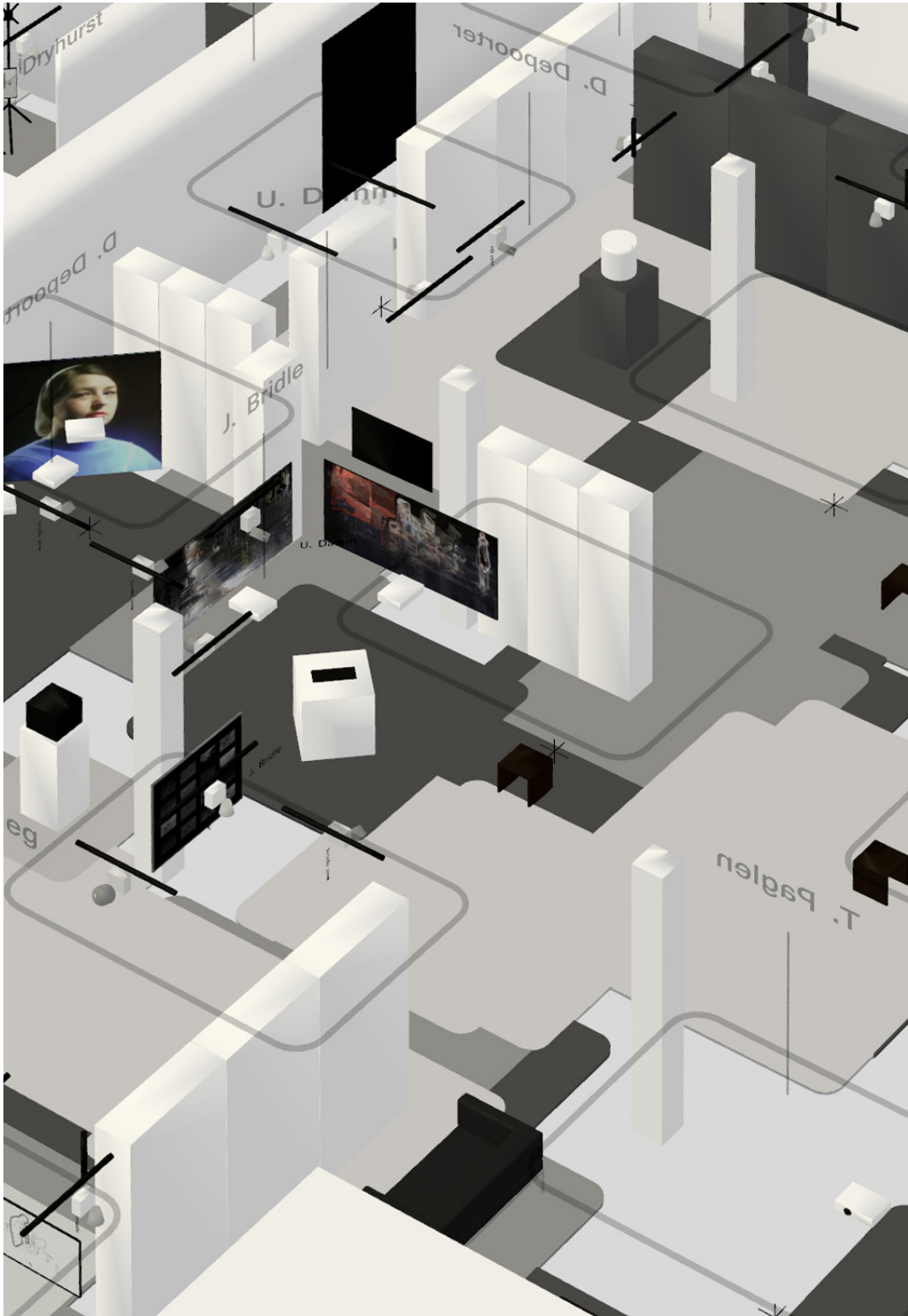
[Img. 11]



[Img. 12]



[Img. 13] <https://vimeo.com/336824155>



[Img. 14]



[Img. 15, 16, 17]



[Img. 18]



[Img. 19]



[Img. 20]



[Img. 21]



[Img. 22]



[Img. 23]

Image captions:

- [Img. 1-4] Atomized (curatorial) Functioning seeks to autonomously curate artworks and mostly define their scenographic/spatial setup in a dedicated space (Haus der Elektronischen Künste museum, in this case). To achieve this task, the conceptual and algorithmic A.I. software considers "values" that are attached to each artwork. They are in this case objective (e.g., the needs in lighting and space, light emission, sound configuration requirements or constraints, distance of view, needs in black or white walls, distance to entrance or to other works, etc.) but do not deliberately deal with any type of meta-discourse about the artworks themselves. Results can be considered as instructions.
- [Img. 5-6] The same view at different times during construction. The colors of the floor (white/light grey/dark grey) may indicate a hue for the floor. They first give indications on the lighting needs for the specific area related to a work. The same can be said of the walls.
[Img. 5] is a video showing the process of construction: <https://vimeo.com/336824155>
- [Img. 7-10] Images 7-10 show a new construction. Once the system cannot place new elements, it saves the final configuration (it is considered a "training set"), deletes the environment and restarts. Gradually, A(c)F builds a large memory from the training sets and learns from them. It gradually converges towards a complete configuration that can only be achieved through the process of learning.
- [Img. 11-12] Two successive views at the same location during a new training set. The 3D visualization layer of A(c)F is built with the popular Unity software. This allows versatile display options for the system, such as large immersive projections, screens, VR headsets, AR, etc. This opens many possibilities and types of projects, including automated digital museums.
- [Img. 13] Full training sessions, starting empty and ending almost full can be seen on fabric | ch's Vimeo. At start, A(c)F considers the museum space as an empty volume, completely dark and silent. Only the artworks and associated information will change the initial configuration of the space and influence each other. However, some existing parts of the exhibition space are better suited to specific types of artworks. The AI "knows" these parts.
- [Img. 14] Axonometric detail. It becomes clear that the space built by AcF is fragmented and keeps a certain level of atomization. The system does not produce monolithic "design gestures" and therefore creates unexpected reconfigurations. This is what the entire Atomized (*) Functioning project is looking for.
- [Img. 15-17] Different views and configurations, with different works of art and a set of black and white elements (spatial "atoms" for the museum, modular pieces). Works by Dries Depoorter, Mario Klingemann, Ursula Damm, Holly Herndon & Mat Dryhurst in these views.
- [Img. 18] Atomized (curatorial) Functioning - by fabric | ch, during exhibition Entangled Realities. Living with Artificial Intelligence at Haus der Elektronischen Künste, in Basel (09.05-11.08.2019). The artwork continues to produce new exhibitions, during the exhibition... It saves and prints them on the roll printer. About 300 new exhibition configurations have been created during the three-month opening period.
- [Img. 19] The work of Mario Klingemann, Uncanny Mirror, at the entrance of the museum, and James Bridle in the background. The "atomized" configuration of the black and white walls proposed by A(c)F can be seen as a materialized scenographic proposal in this image.
- [Img. 20] Another view in the exhibition space, with the works of Ursula Damm, Dries Depoorter and Zach Blas & Jemima Wyman's works in the background.
- [Img. 21] Holly Herndon & Mat Dryhurst's sound piece: Deep Belief.
- [Img. 22] Sebastian Schmiegler's piece: Decisive Mirror.
- [Img. 23] A view in the fractioned space with Lauren McCarthy's installation: LAUREN.

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Atomized (curatorial) Functioning

Atomized (curatorial) Functioning is part of an ongoing series of works: Atomized * Functioning, abbreviated as A(*)F. It is the third variation in this series and has been exhibited and deployed twice to date across different configurations and contexts.

A(*)F is an architectural project based on automated algorithmic principles, to which a machine learning layer can be appended as required. Operating as a software piece, it endlessly generates and records new spatial arrangements for a given situation. When activated, its AI layer allows the system to converge toward a 'solution' in real-time 3D, responding dynamically to environmental data and constraints.

A(*)F is anchored in conceptual rules derived from the overarching research program of fabric | ch. Consequently, the primary significance of this work lies not in the 'AI' itself, but rather in the automated design process governed by author-defined rules and the broader inquiries it provokes.

Grounded in this research program, these rules continuously seek new functional associations tied to the hybrid physical-digital and human-nonhuman state of our contemporary landscape—theorized by some as “post-digital”, “post-anthropocenic”, or “capitalocenic”. To achieve this, the algorithms utilize 'atoms' (3D exhibition components organized in a predefined, atomized granularity) to execute their combinatorial constructions. The system parses and maneuvers through these elements to discover unexpected, sustainable reconfigurations (“creolizations”): automated, creolized architectures.

The ongoing computational work performed by the AI is displayed continuously across variable screen layouts and dimensions. Depending on installation requirements, these displays function as immersive, analytical, or illustrative media, and can even incorporate robotic control.

As stated, the automated calculations of the AI are not the central focus. Instead, the core stakes and questions center on A(*)F's capacity to generate endless spatial proposals and configurations for specific existing conditions—whether dynamic (sensor data) or static (structural constraints)—and to archive them for subsequent analysis by humans or algorithmic systems.

A(*)F was exhibited at the House of Electronic Arts (HEK) in Basel (CH) in 2019 as a standalone piece for a three-month duration during the exhibition *Entangled Realities* (09.05–11.08.2019). Prior to the show, a specific configuration of the system was deployed to actively generate the curatorial and scenographic framework: *Atomized (curatorial) Functioning*. The installation continuously produced new exhibition configurations throughout the duration of the show.

Contact

fabric | ch (97-26)

Architecture/Art direction:

Patrick Keller

Christophe Guignard

-

Technical/Technological direction:

Christian Babski

Stéphane Carion

-

Collaborators:

Michael Chablais

Keumok Kim

Contact:

fabric | ch

6, rue de Langallerie

1003 Lausanne

Switzerland

-

www.fabric.ch

-

t. +41(0)21-3511021 // f. +41(0)21-3511022 // m. info@fabric.ch