Intersections of Visual Semiotics & Computational Design

Conceptual and aesthetic explorations with generative AI image synthesis

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Midjourney Bot ✓ BOT 11/13/2022 5:25 PM

imaginary workspaces electrostatic --ar 16:9 - Variations by @self-organizing (relaxed, private)

U1 U2 U3 U4

V1 V2 V3 V4

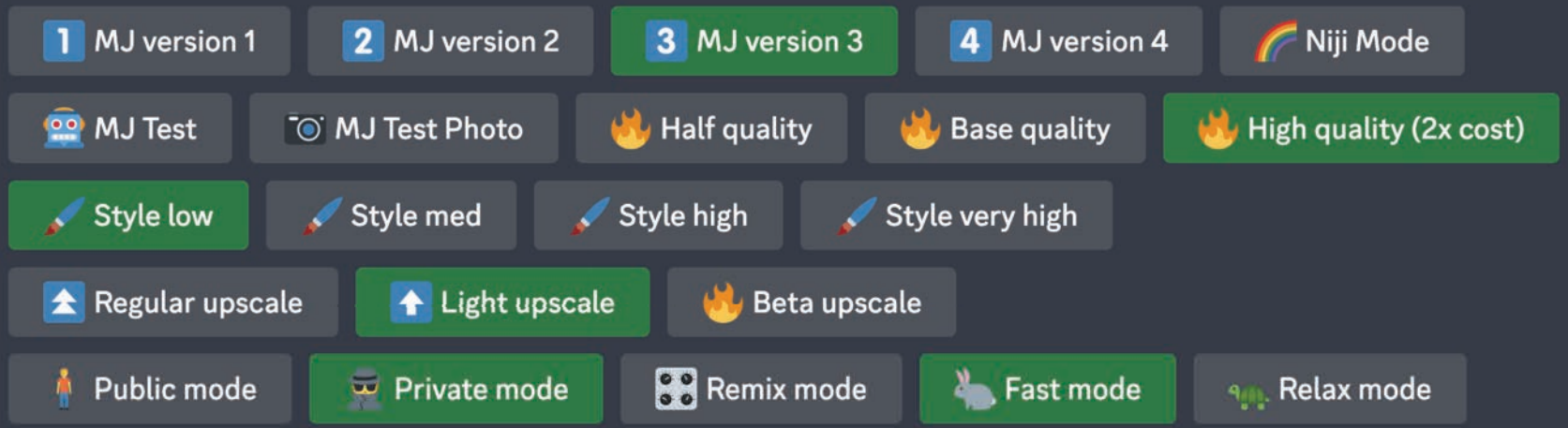
Midjourney Bot ✓ BOT 11/13/2022 5:25 PM

imaginary workspaces electrostatic --ar 16:9 - Variations by @self-organizing (relaxed, private)

self-organizing used /settings

Midjourney Bot ✓ BOT Today at 2:03 PM

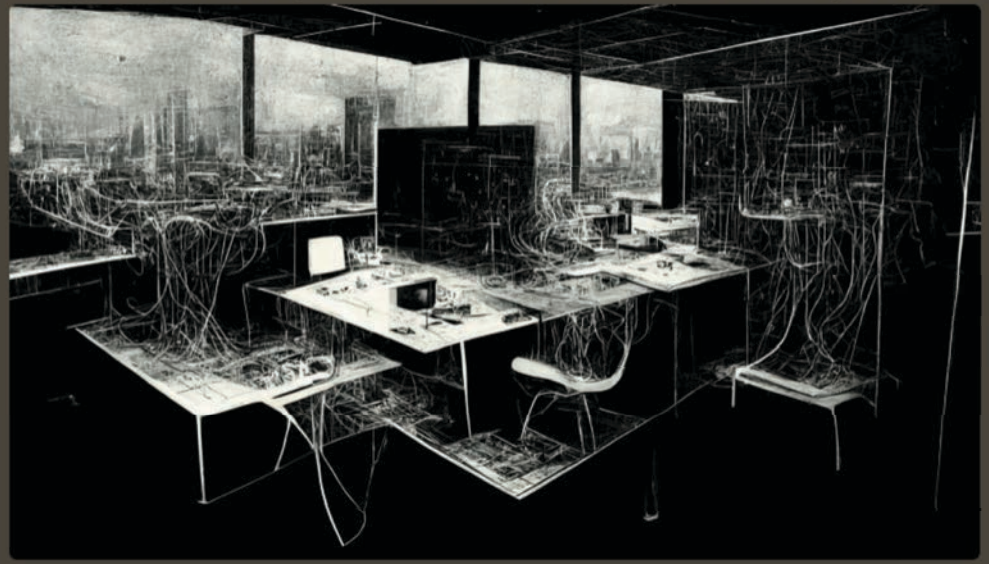
Adjust your settings here



Only you can see this • Dismiss message

Midjourney Bot ✓ BOT 11/14/2022 8:28 AM

imaginary workspaces electrostatic --ar 16:9 - Upscaled by @self-organizing (relaxed, private)



Make Variations | Upscale to Max | Light Upscale Redo | Beta Upscale Redo | NEW Remaster

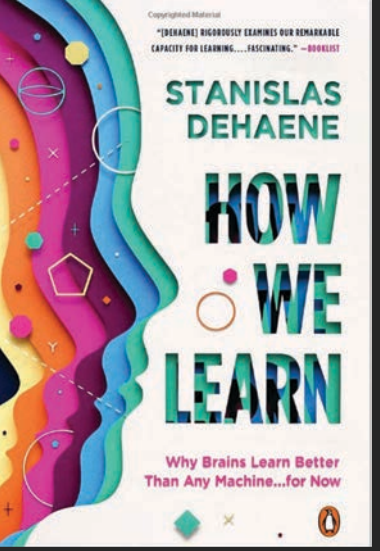
Web | 😖 | 😕 | 😀 | 😍

Some Specific Photographic Primitives

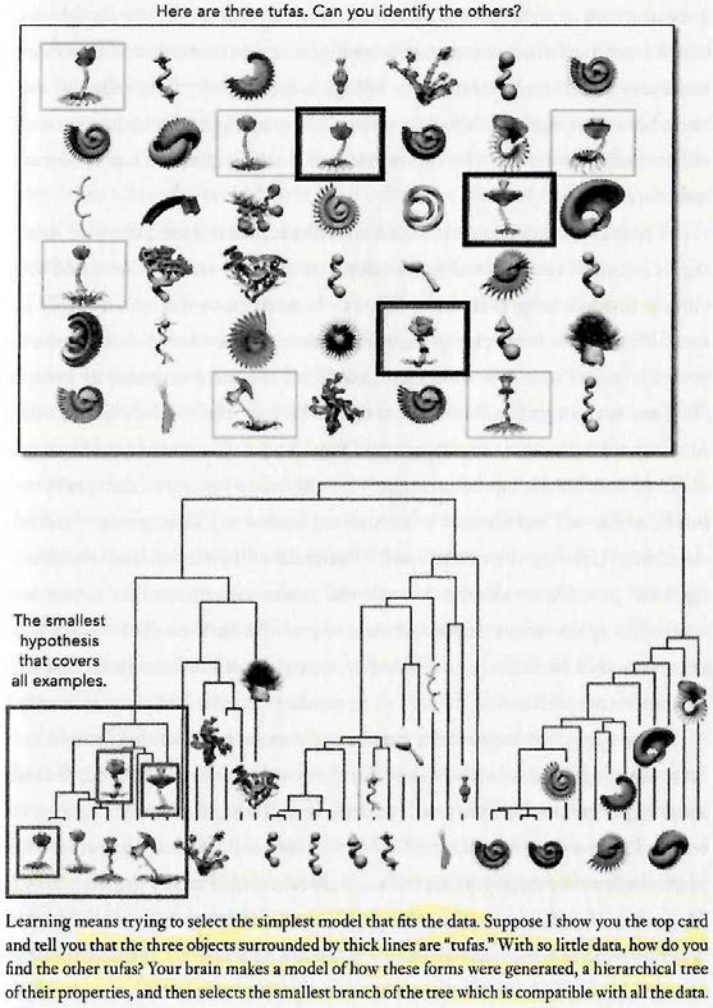
- the sub-division of the image
- visual tension between forms
- overall simple to complex structures
- foreground / background
- regular to irregular forms (repetition / variation)
- balanced / imbalanced spatial grouping of forms
- what angle directions for forms and lines
- rhythmic variation
- texture range for each form
- light / dark tones for subsections
- the number of light / dark toning areas
- the number of colors, color hue(s), color saturation, color darkness / brightness,
- complementary color contrast
- depth perspective
- blur value between visual elements

Urban Nature (1975-1978) A photographic series capturing scenes in the world by which to study in visual coherence

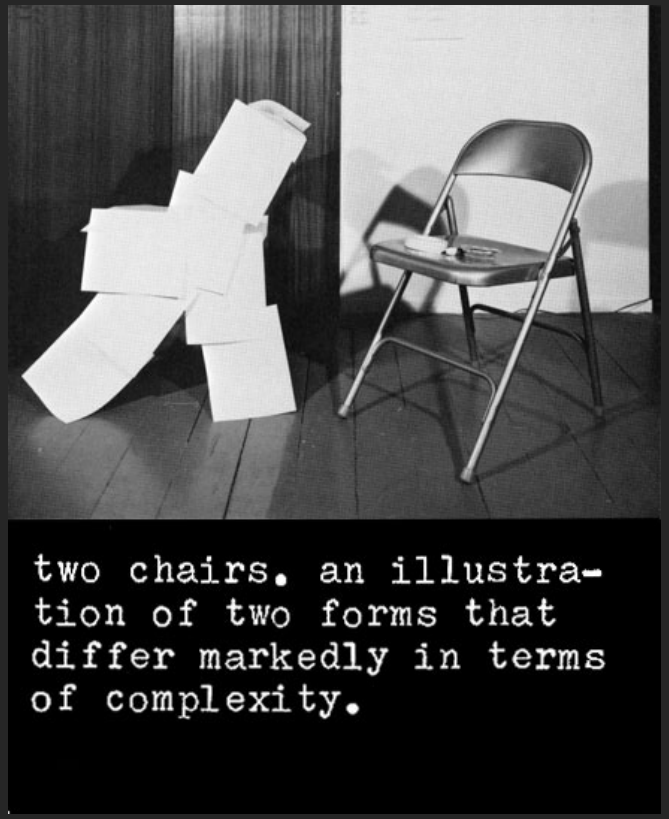
Catalog of Found Objects (1975) A study in classification and systemic organization

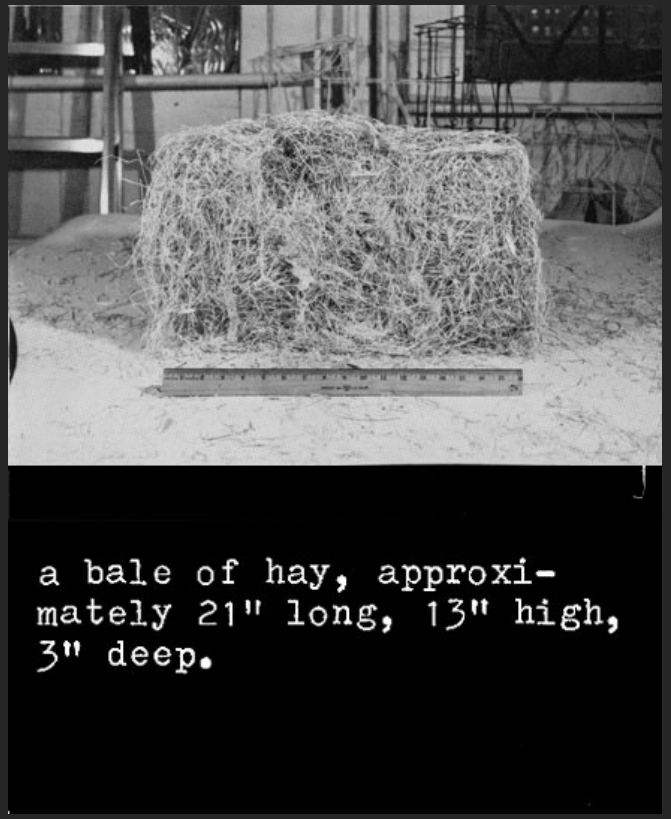


Catalog of Found Objects (1975) A study in classification and systemic organization

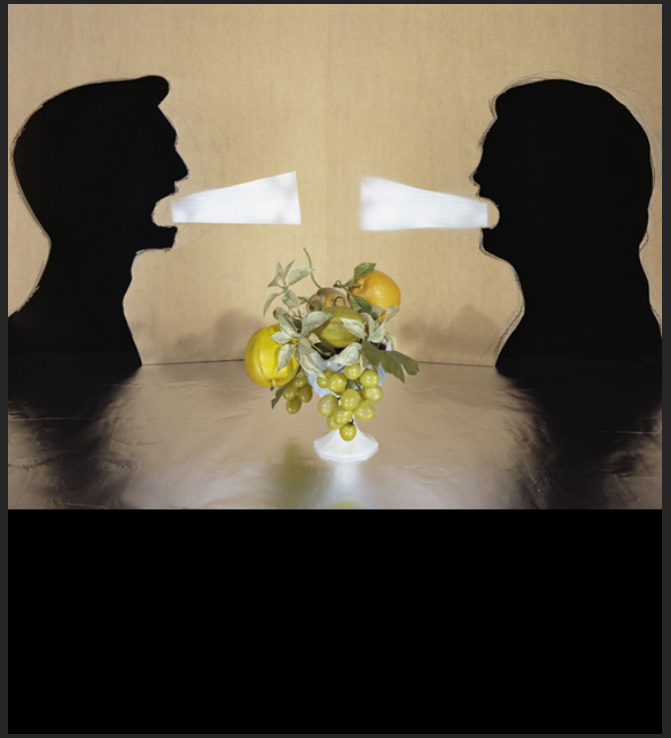


Catalog of Found Objects (1975) A study in classification and systemic organization

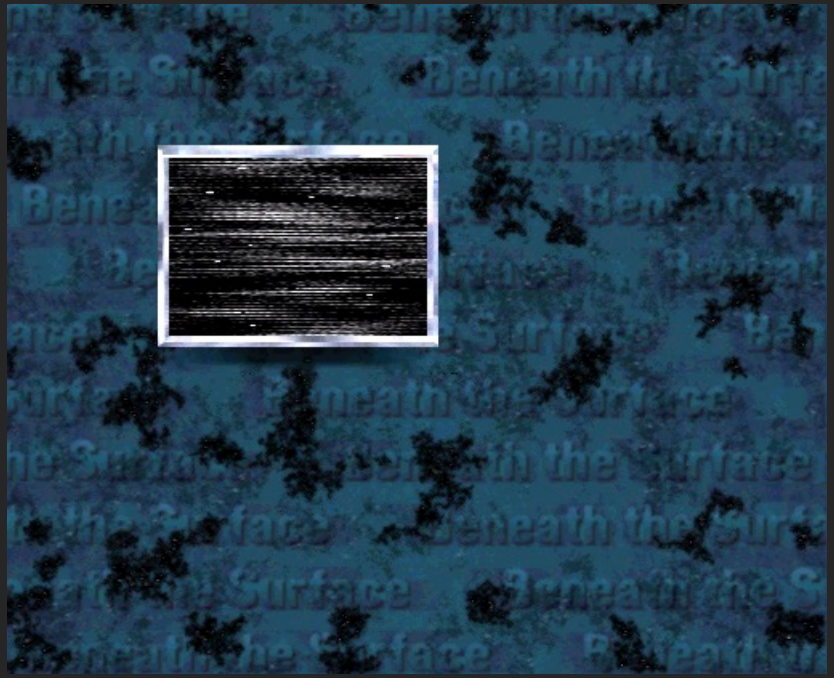


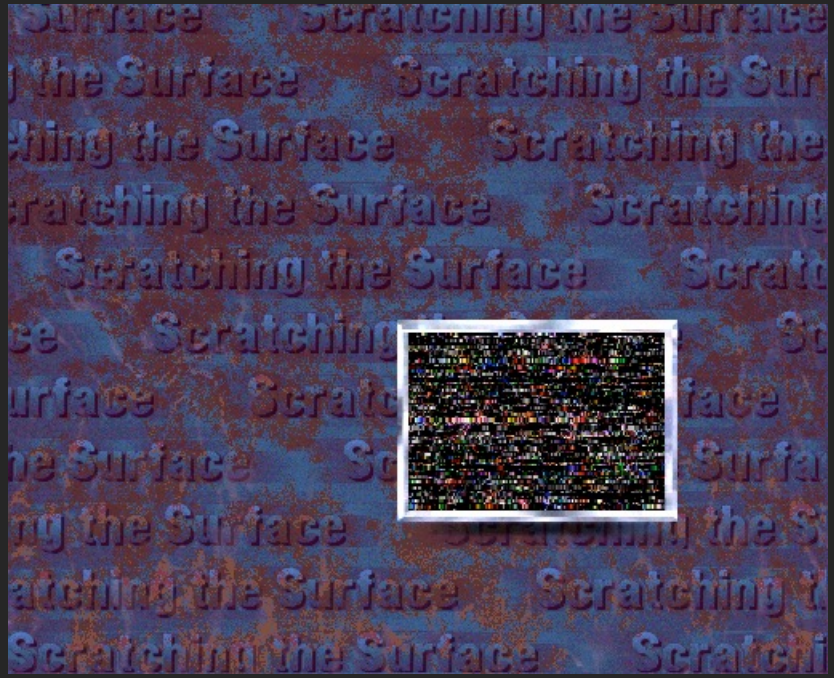


Still Lives (1977-1985) Studio staged photographs to explore propositions based on deductive reasoning, methods of logic, syllogism, comparisons, etc.



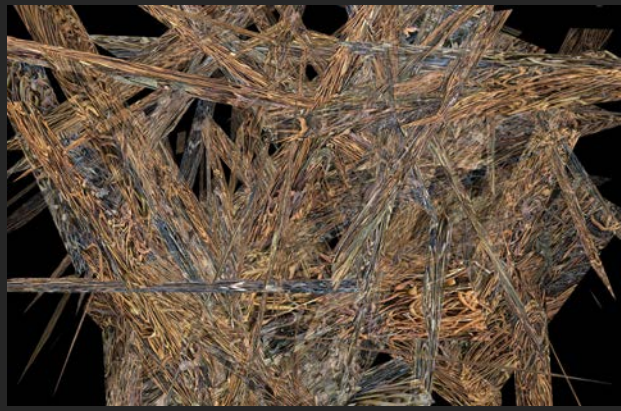
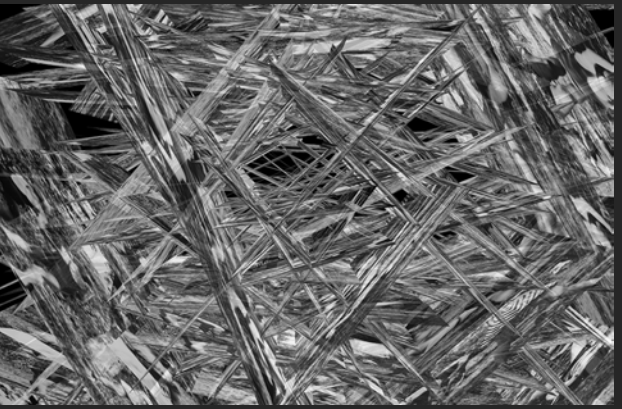
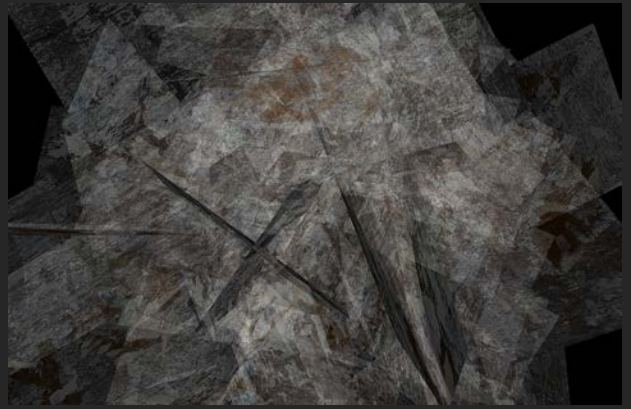
Corporate Culture (1980-1982) Staged narrative construction





Beneath the Surface, Scratching the Surface (1987) “Born digital”, from the “Noise-to-Signal” Series

“Generative art refers to any art practice where the artist uses a system, such as a set of natural language rules, a computer program, a machine, or other procedural invention, which is set into motion with some degree of autonomy contributing to or resulting in a completed work of art.”

Anamorph-Voronoi (2020) Explorations in algorithmic organization of images in 3D virtual space

THE TWO-STEP CREATIVE PROCESS:

- User provides a text or image prompt which generates a complex image
- Curation process where one selects out of the results

FUNDAMENTAL QUESTIONS:

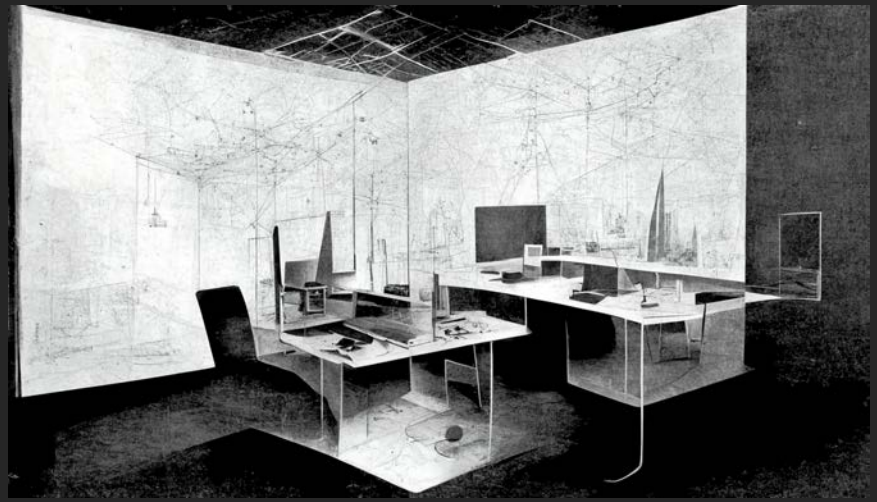
- If complex images that resemble masterful artworks can be produced by feeding textual prompts into an opaque system, can the results be considered creative?
- What is the nature of the human creativity involved in generating images with text-to-image systems

CHALLENGES:

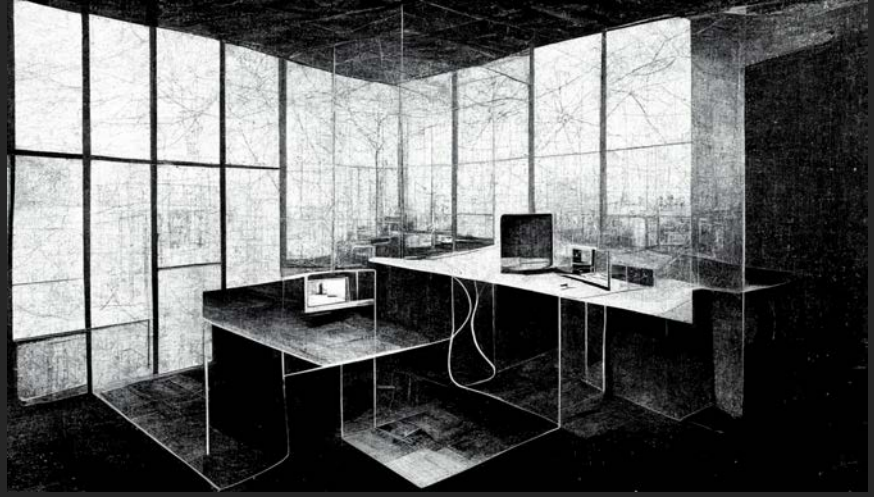
- An opaque process
- Based on the image we can infer little about the system used
- We don’t know what text and configurations resulted in the prompt – to access full extent of human creativity, need information on all aspects

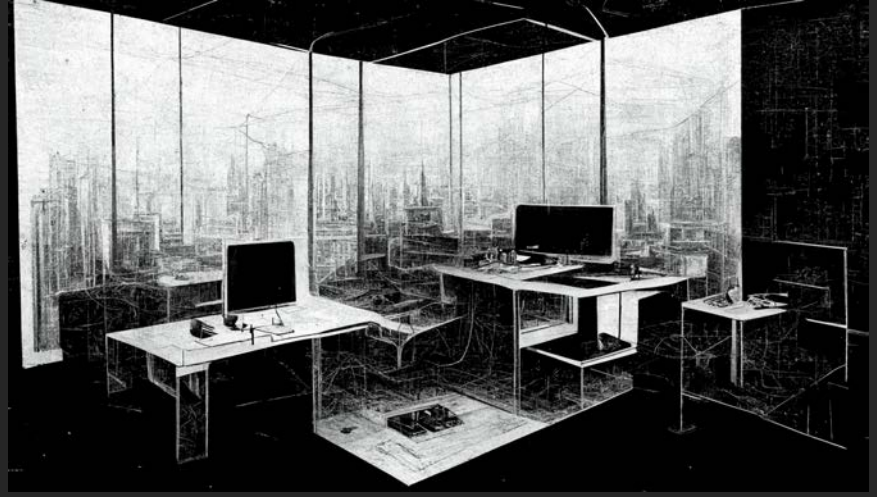
“The Creativity of Text-to-Image Generation”, Jonas Oppenlaender, 2022, https://arxiv.org/pdf/2206.02904.pdf

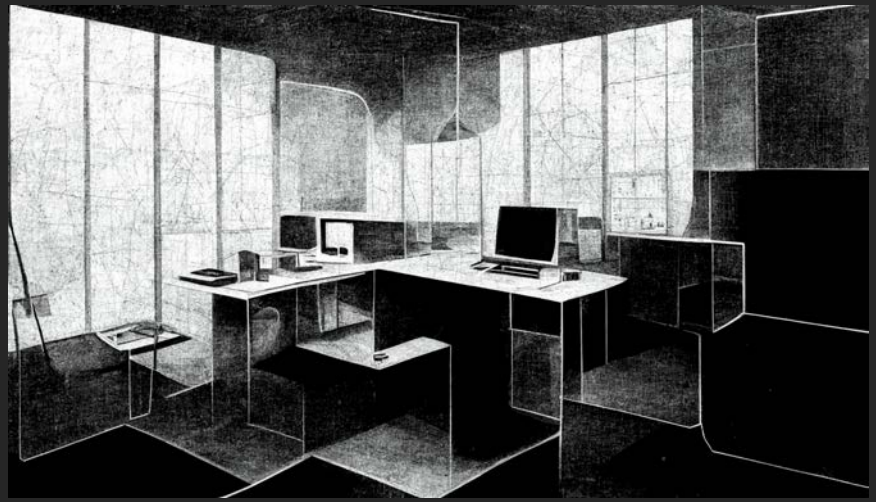
Equivalents II (1992) A text prompt generates an abstract cloud-like image, referencing Alfred Stieglitz's 1920s' photographs of clouds

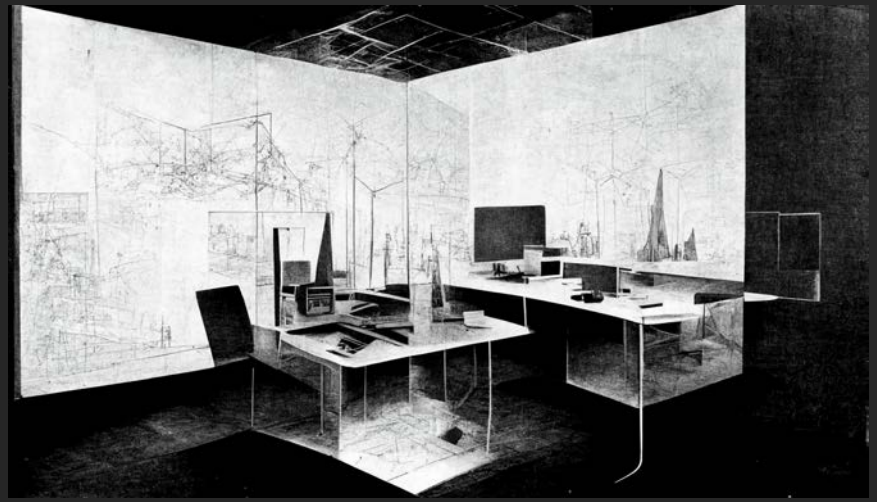


The Office (2022)

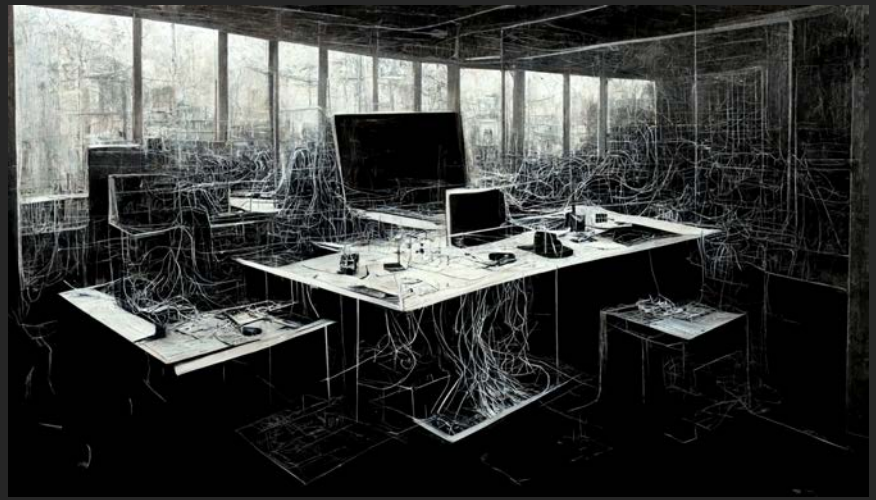
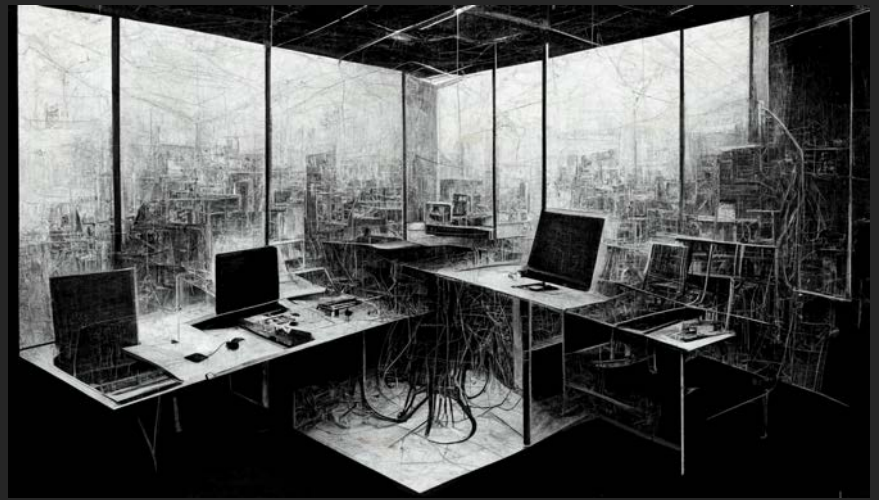








The Alchemist's Study (2022)

The Alchemist's Study (2022)

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SmokeScreen (2022)

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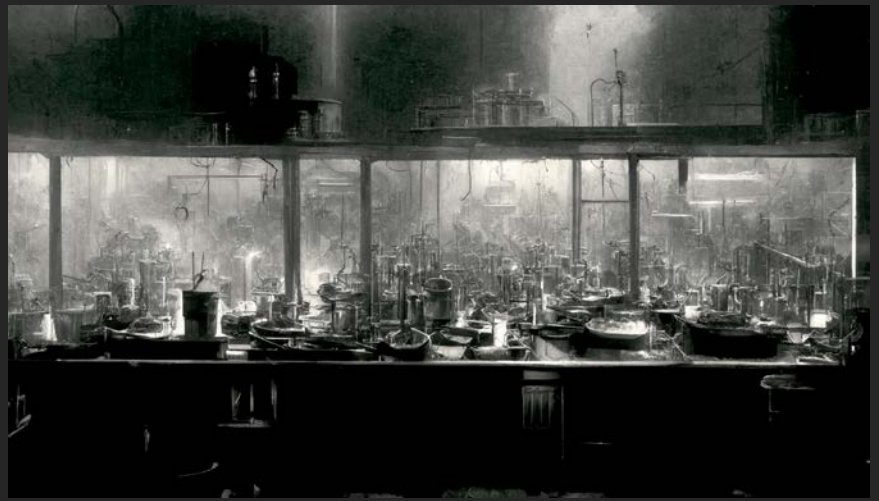
Imaginary Workspaces: Cold Kitchen (2022)

Imaginary Workspaces: Orange Lab (2022)



Imaginary Workspaces: The Lab (2022)

Imaginary Workspoaces: Street Kitchen (2022)

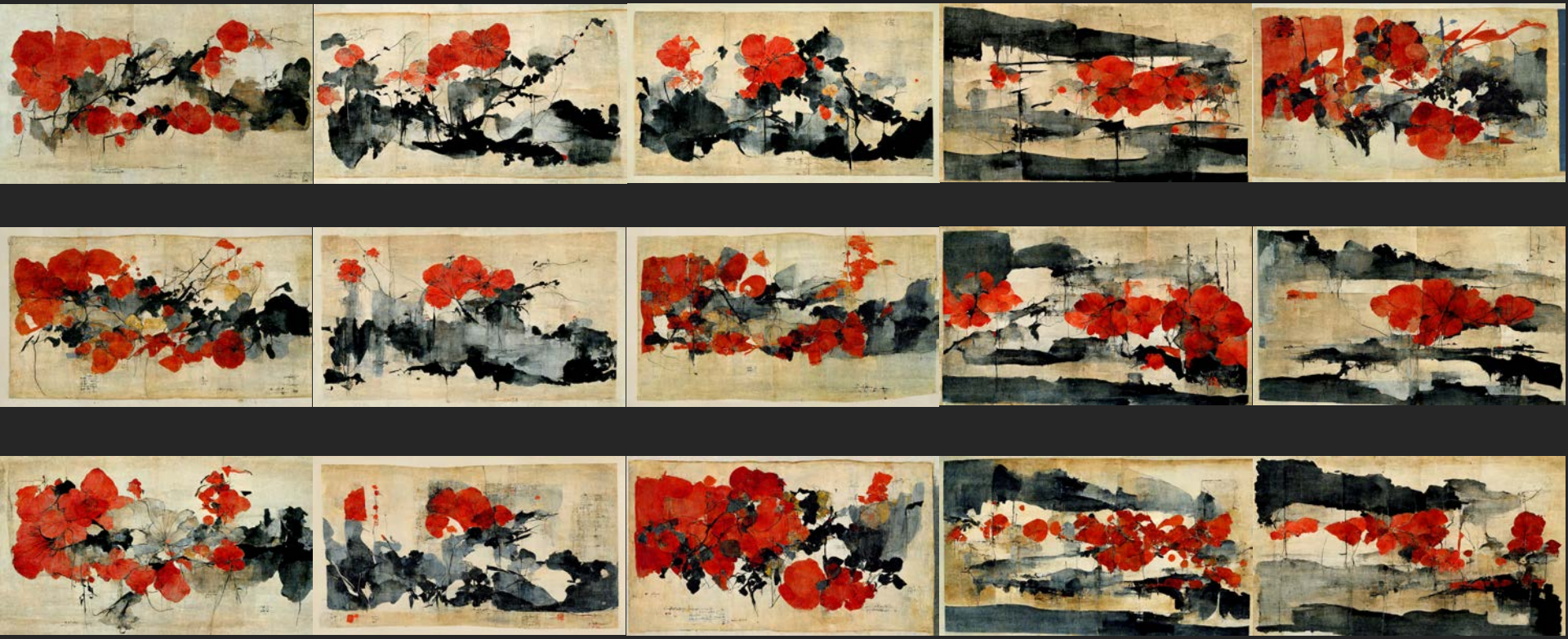
Living Space (2022)

Abstraction: Orange Stain (2022)

Abstraction: Wash (2022)

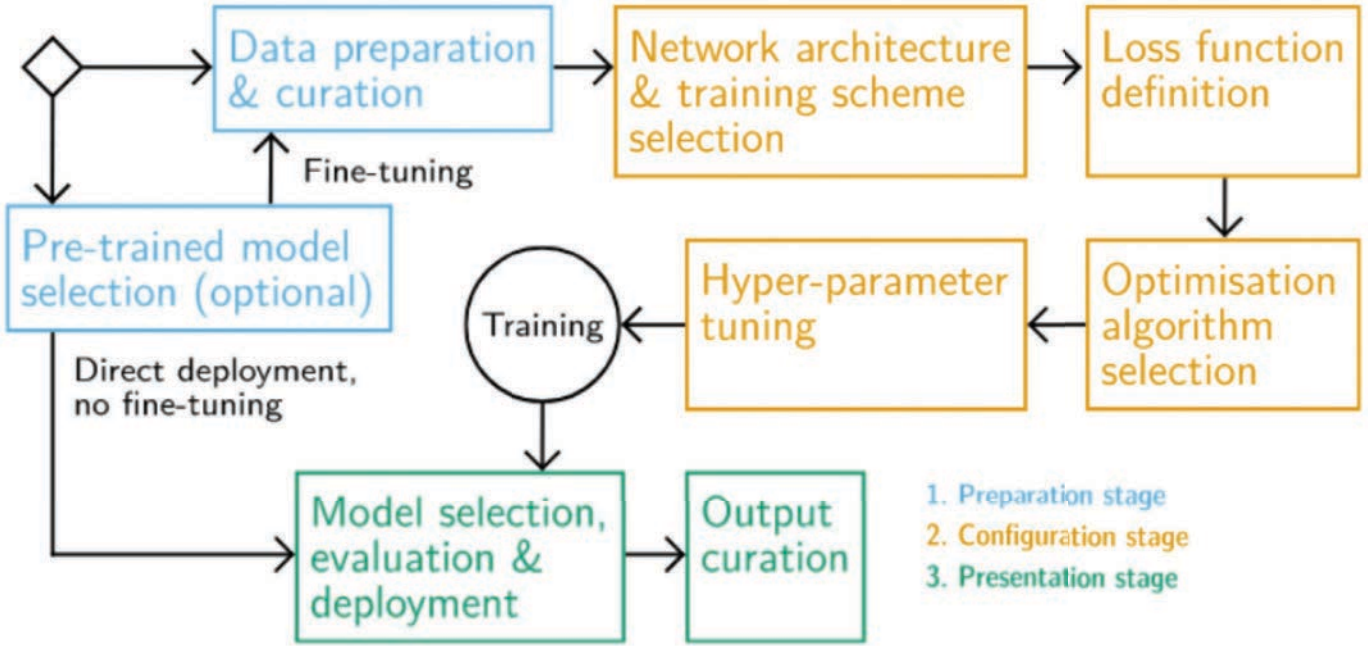
Abstraction (2022)

Vertical Stack (2022)

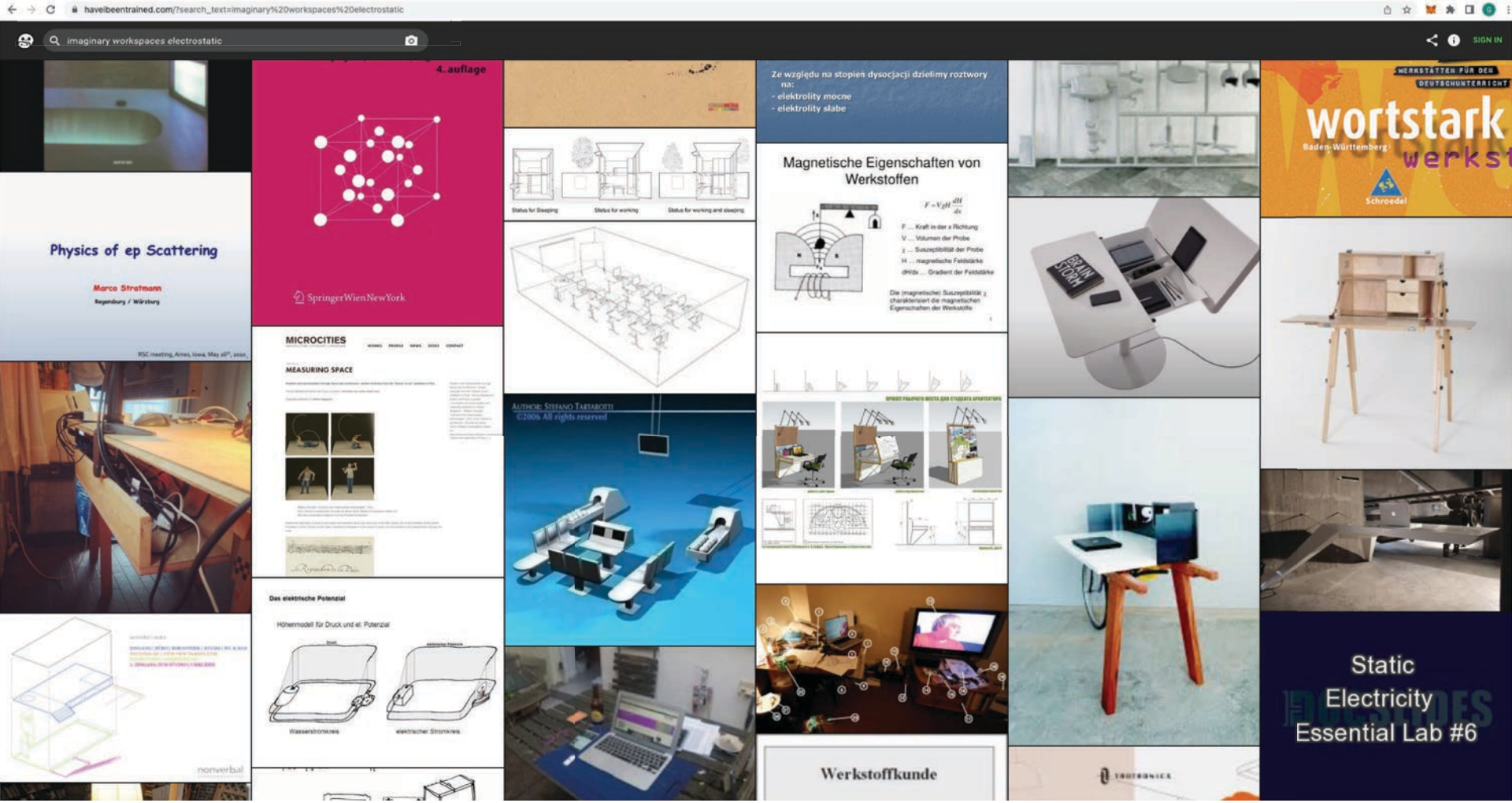


Red Stain (2022)

Creative Control (blue and green), Black Box Processing (orange)



https://www.semanticscholar.org/reader/f3479740d4ec7f91b6d7a01167e9c875a72d386e



https://haveibeentrained.com/ (Search 5.8 billion images used to train popular AI art models)

BLACK BOX SYSTEM:

- Only control at **input** (prompts) and **output** (curation)
- Even though image dependent on huge (5,8billion) image database, results still dependent on what is in the database
- Most common prompts get the more literal results
- Esoteric, specialized terms and references not effective

AS-OF-YET UNEXPLAINED EASTHETIC DESIGN DECISIONS:

- Based on the image we can infer little about the system used
- What are the factors that determine consistent and variable details
- To what degree can one go against embedded stylistic determinants

BIAS, COPYRIGHT, etc:

- Datasets unreliable, mislabeling, ideological, stereotypes
- Database training sets include internet scraped images with potential intellectual property issues

“*The choice of image nowadays is a new form of framing the image. It may have been luck but informed luck connecting to all sorts of memories and impulses, imaginings, envisioning what bypasses the Midjourney 'style' or 'look’.*

https://www.mat.ucsb.edu/~g.legrady/lect/23/liege.pdf