

photo realism

Neilson Koerner-Safrata

reality and realism in generation

@neilsonks



photo realism

the “photo real”

For a short period of history we treated images
as faithful representations of reality.

photo realism



photo realism



photo realism

the “photo real”

For a short period history models trained on video and text, learned to crawl out of images and uncompress themselves back into reality.

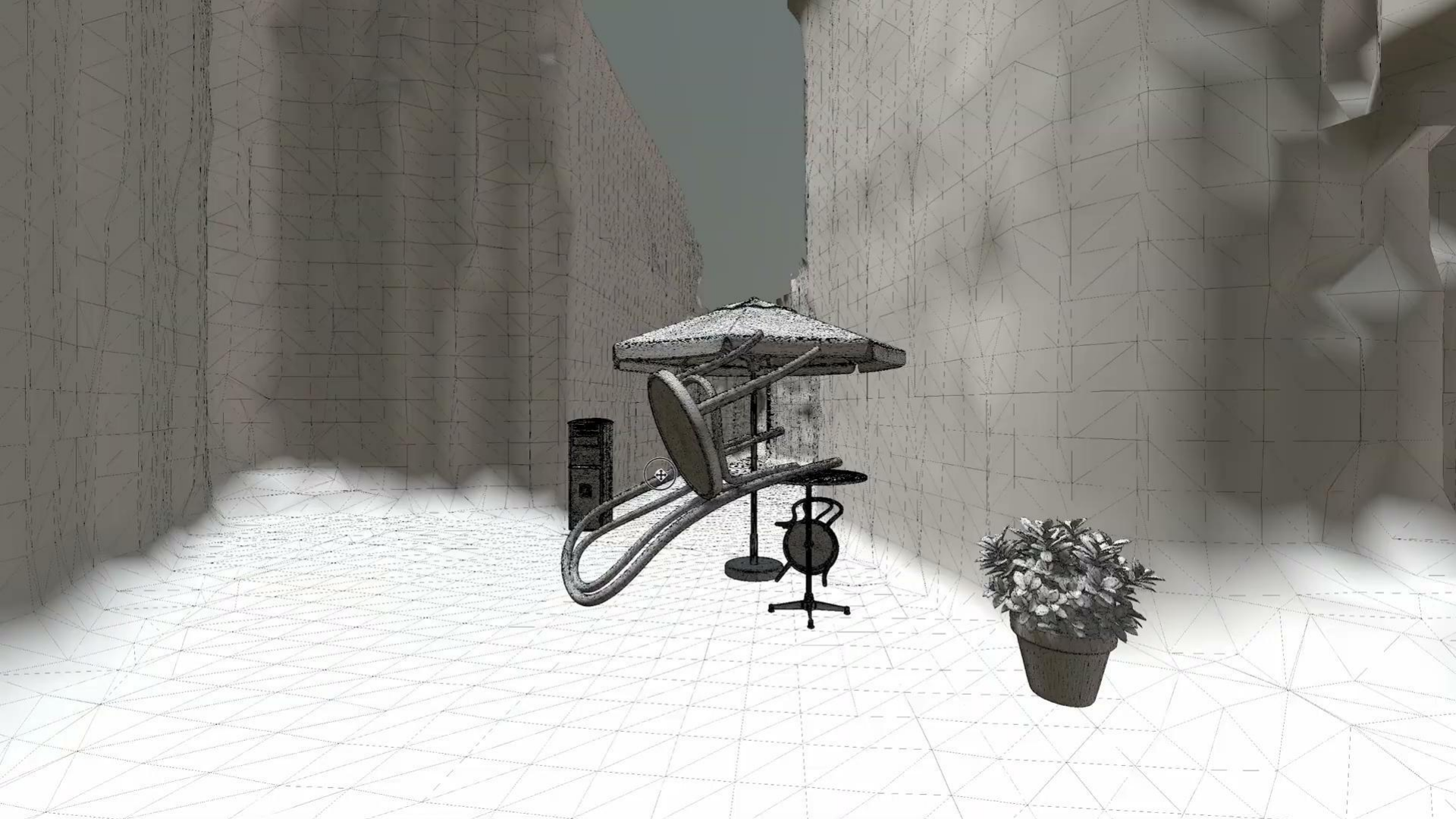




photo realism

image-to-world



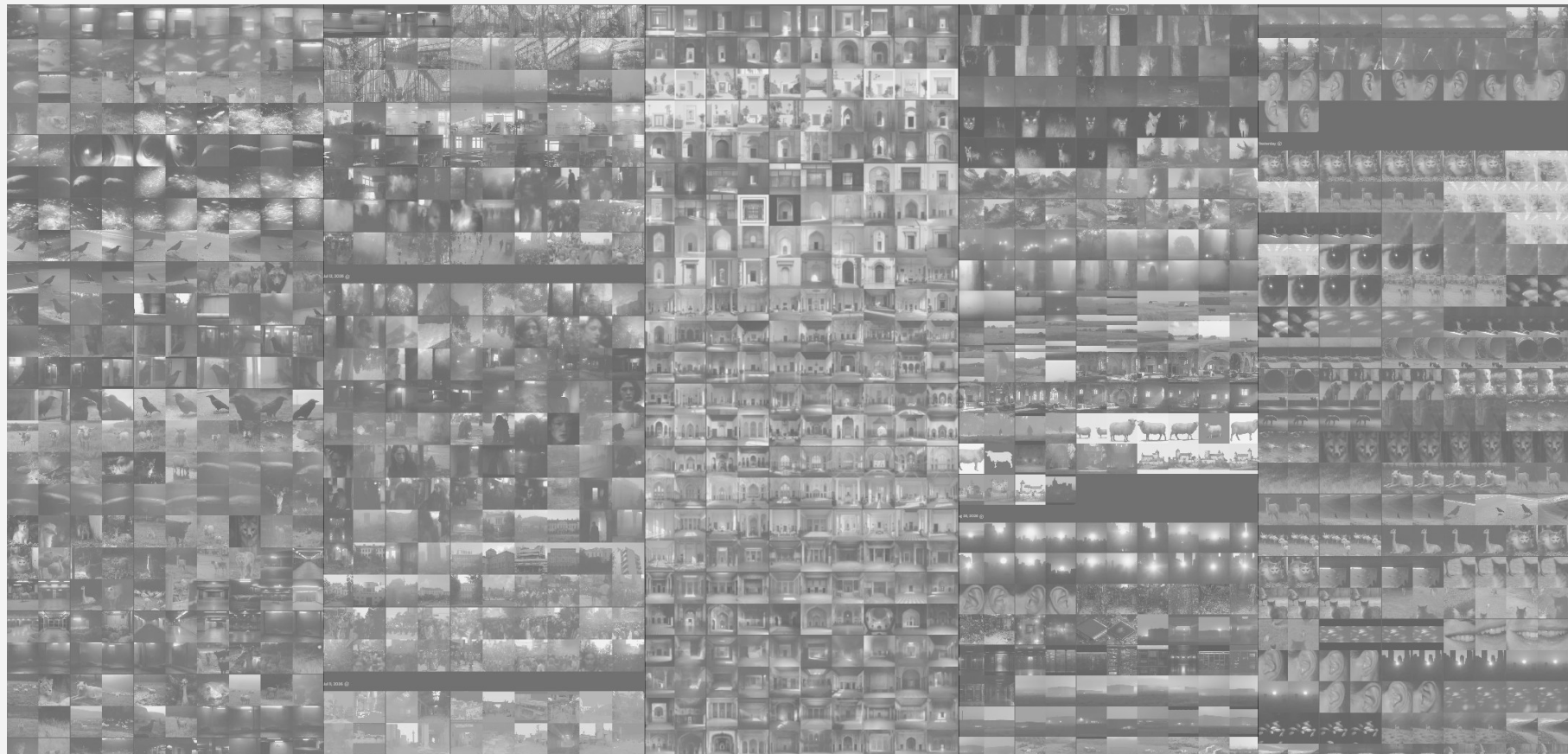
photo realism



image-to-world

photo realism

image-to-world



1. Generate captions of source image, list of objects in the scene
2. Isolate and generate multi-views of each object and send to 3D model
3. Inpaint objects out of original image, send to environment model
4. Recomposite, create lighting, sound effects, and physics



photo realism

image-to-world



GitHub

<https://github.com> › [neilsonnn](#) › [image-blaster](#) ⋮

neilsonnn/image-blaster: An image-to-world skillset for ...

image-blaster ... Creates 3D environments, SFX, and meshes from a single **image** using Claude skills, World Labs, and FAL. Can take you from an **image** to a fully ...

photo realism

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as faithful representations of reality.

photo realism

1. photo realism in the arts
2. photo realism in science
3. generation as protocol for knowing

photo realism

1. photo realism in the arts



Duncan Wilson on the “fake” image

photo realism

1. photo realism in the arts

the cave

photography
personal media
cinema
scripted space

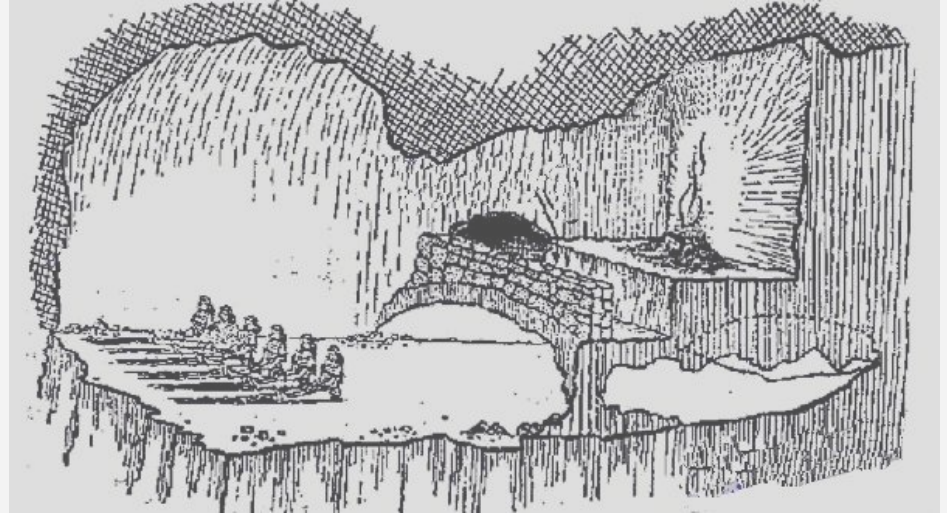


photo realism

1. photo realism in the arts

the cave
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“to photograph is to appropriate the thing
photographed”

“photography makes us feel that the world is more
available than it really is”

photo realism

1. photo realism in the arts

the cave
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THE MOST PHOTOGRAPHED BARN
IN AMERICA. We counted
five signs before we
reached the site. There
were 40 cars and a tour
bus in the makeshift lot.

[...]

“No one sees the barn”, he
said finally.

[...]

“They are taking pictures
of taking pictures” he
said.

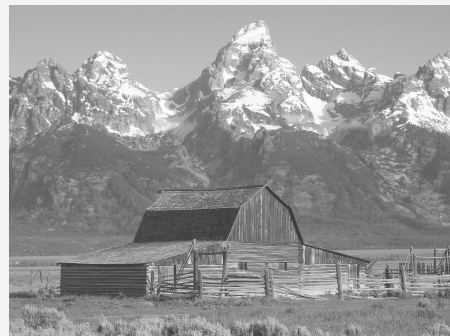


photo realism

1. photo realism in the arts

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“this feels like a movie”

Proof that narrative reality is something we sense,
something that is felt.

photo realism

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1. photo realism in the arts

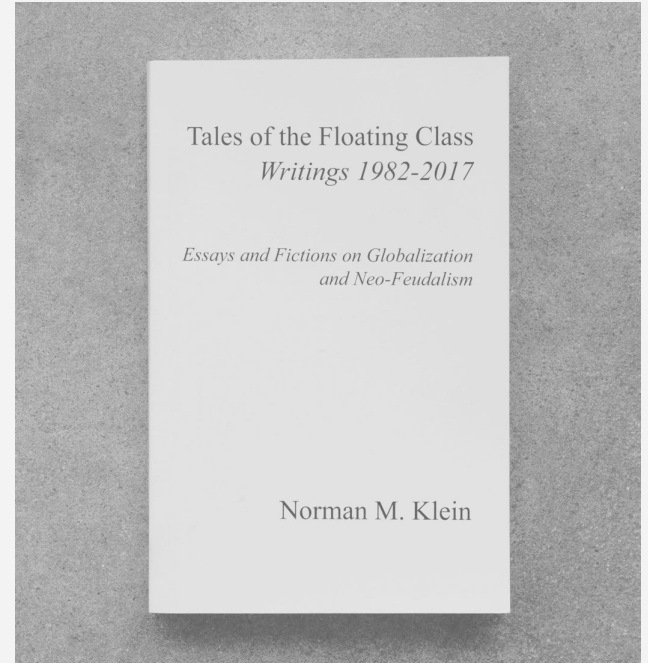


photo realism

1. photo realism in the arts
2. **photo realism in science**
3. generation as protocol for knowing

photo realism

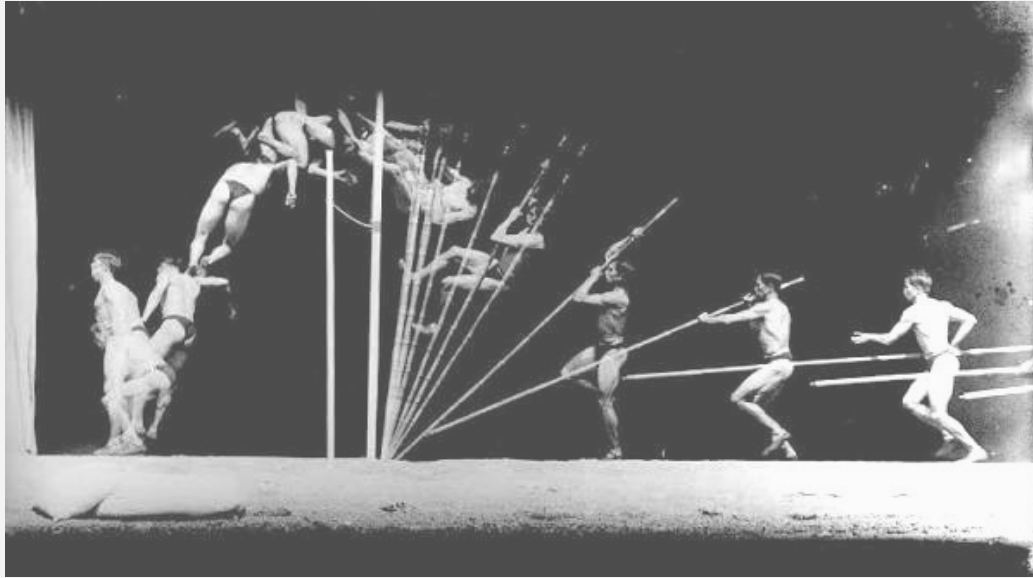
2. photo realism in science



panorama of San Francisco, 1878

photo realism

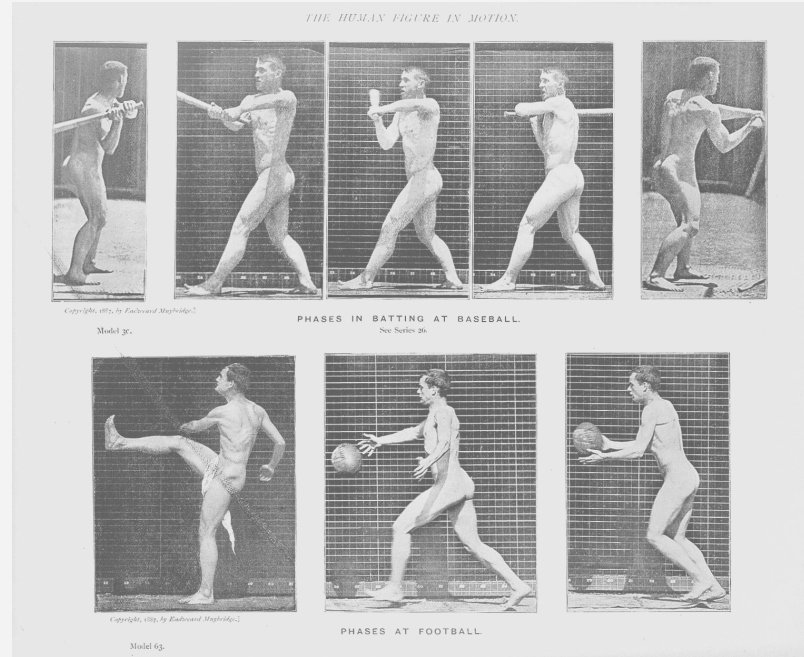
2. photo realism in science



chronophotography

photo realism

2. photo realism in science



The Human Figure in Motion, 1901

photo realism

2. photo realism in science



Marcel Duchamp and Nude Descending a Staircase

photo realism

2. photo realism in science

Ed Catmull



Ivan Sutherland

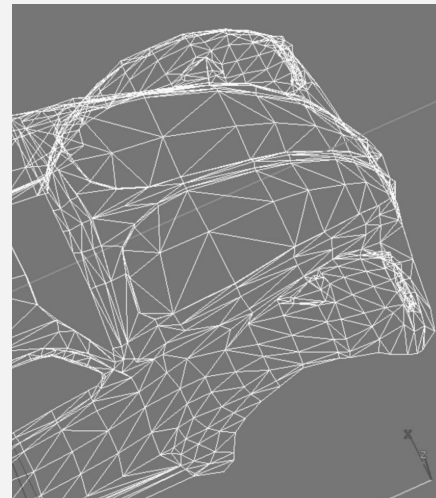


photo realism

2. photo realism in science

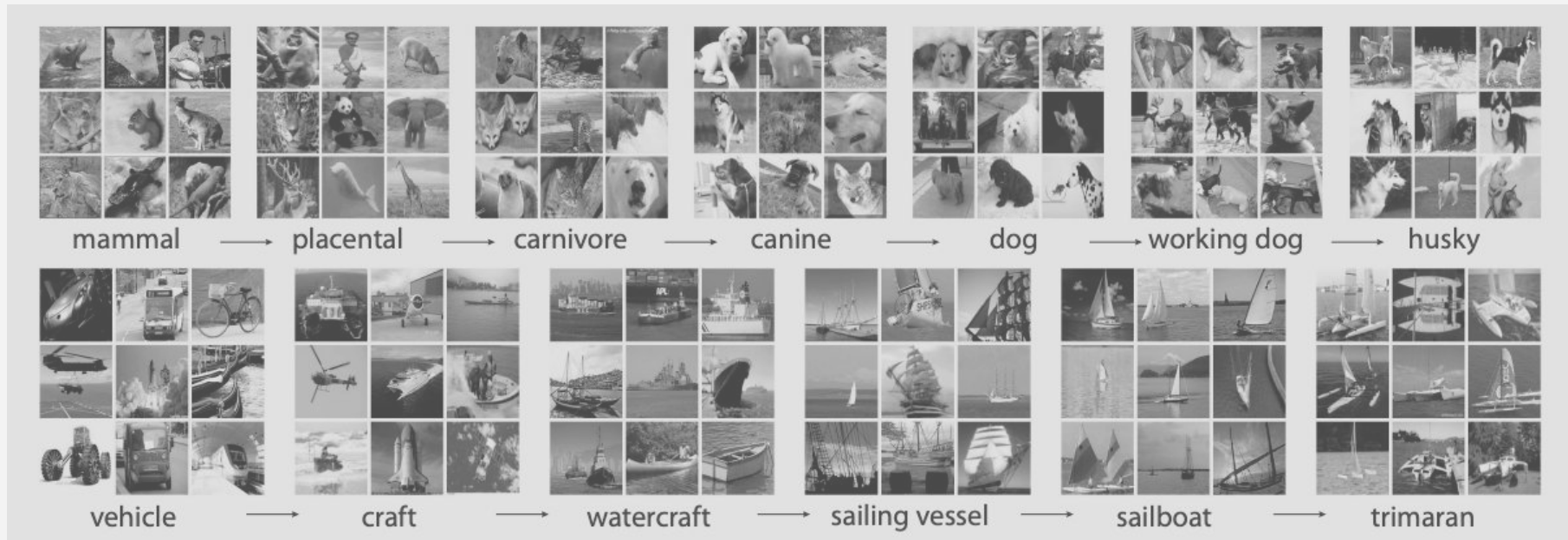


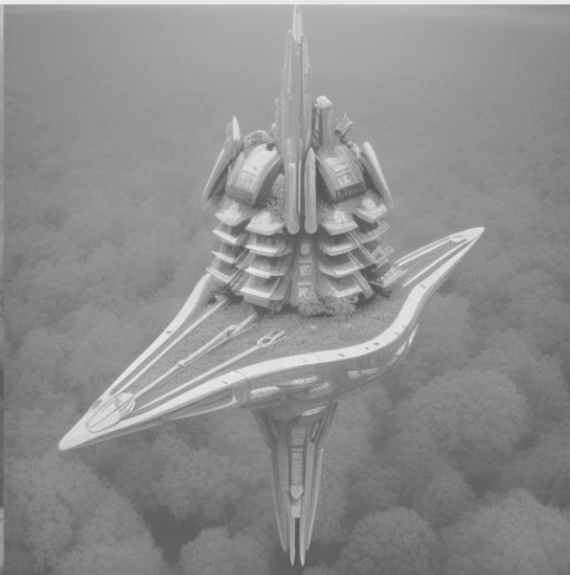
photo realism

2. photo realism in science

castle with red roofs



spaceship



city

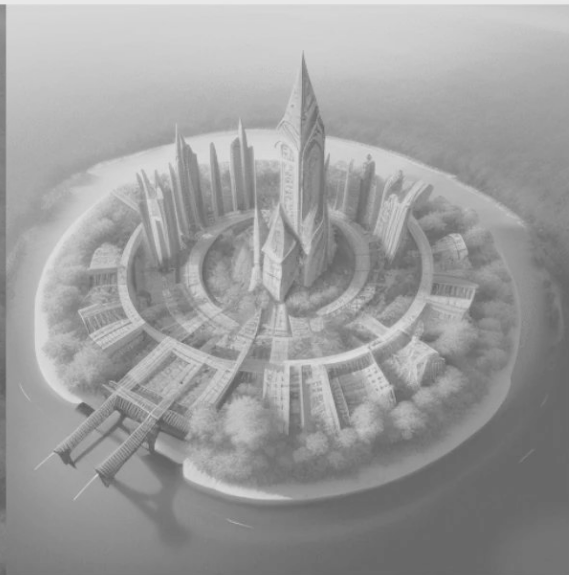


photo realism

2. photo realism in science

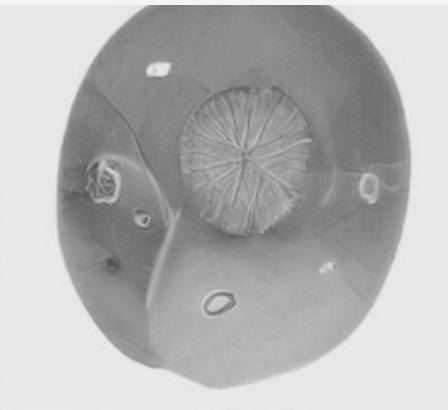
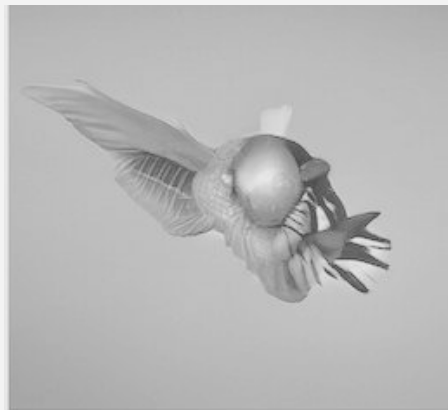


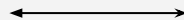
photo realism

telepathy app

measure the distance
between you and someone
else's embeddings

flick a photo from your
phone to others and the
4 nearest images appear

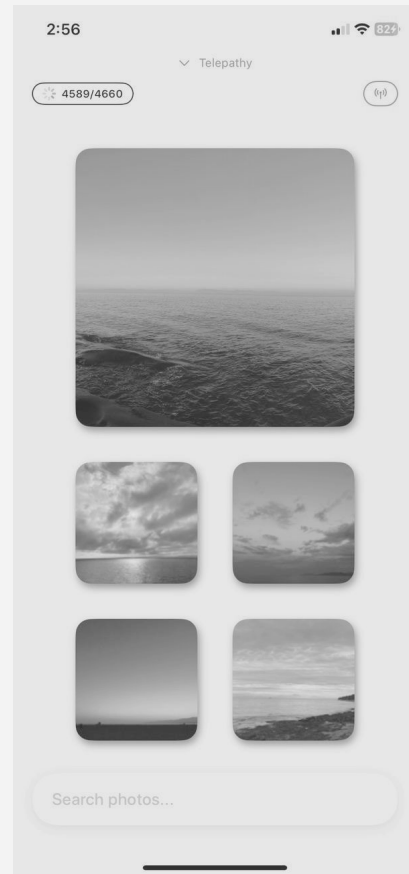
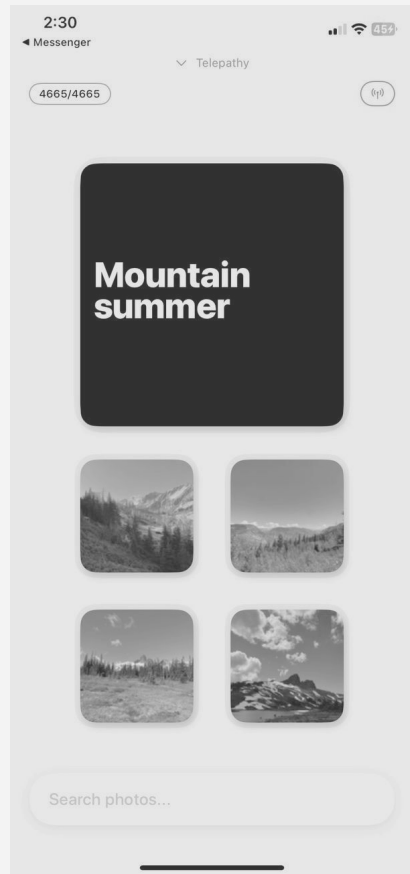
type a word to change
the subject



2. photo realism in science



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photo realism

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Glass Bead Game as a connectionism of the arts

The high dimensional vibe of arts and sciences rendered in game form

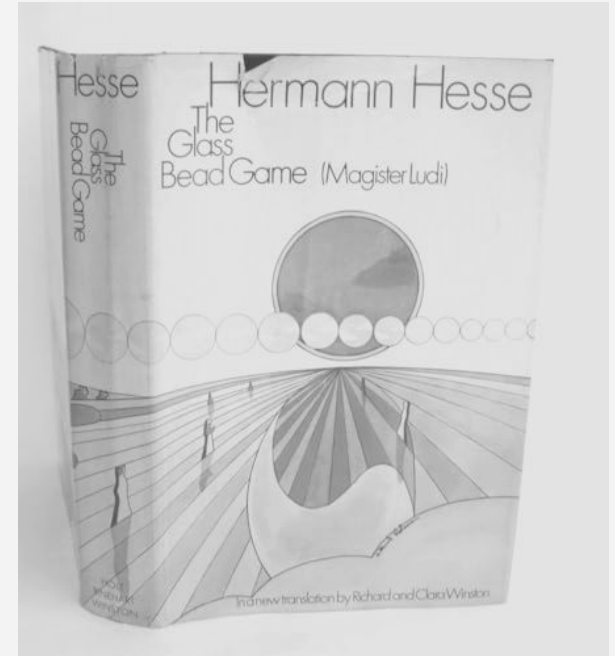
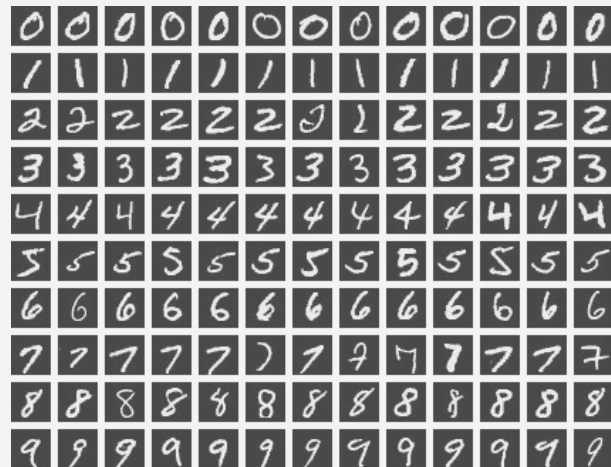


photo realism

2. photo realism in science



The Human Figure in Motion



MNIST dataset

photo realism

1. photo realism in the arts
2. photo realism in science
3. generation as protocol for knowing

photo realism



3. generation as protocol for knowing



photo realism

3. generation as protocol for knowing

hearing
looking

→
→

listening
seeing

photo realism

3. generation as protocol for knowing

perceiving



noticing

photo realism

3. generation as protocol for knowing

generating



knowing

photo realism

3. generation as protocol for knowing

“At Rhoda, we are solving it by reformulating
robot policies as video generation”

Is this knowing?

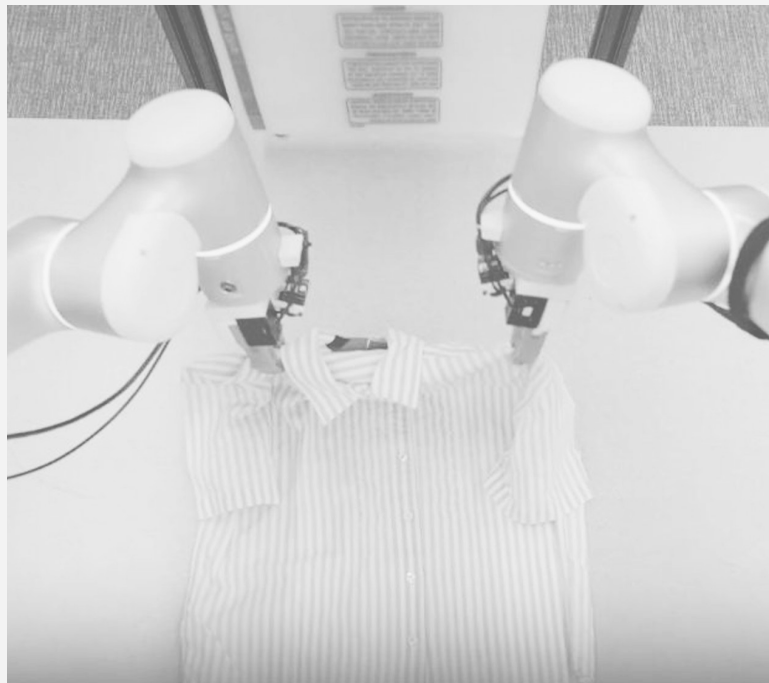


photo realism

final thoughts

photo realism

“we can imagine because we can remember”

photo realism

“generation as a protocol for knowing”

photo realism

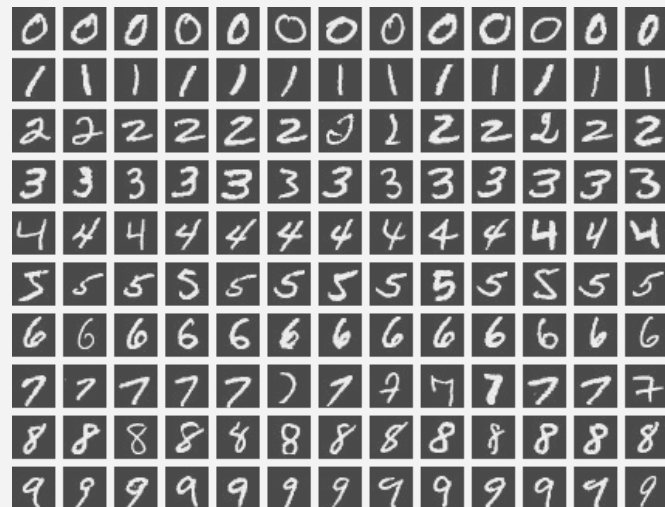
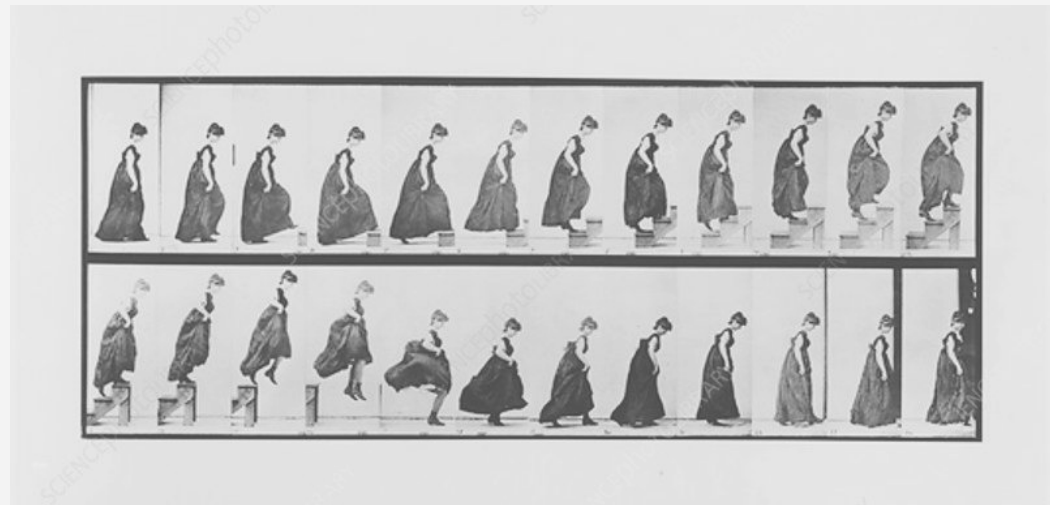


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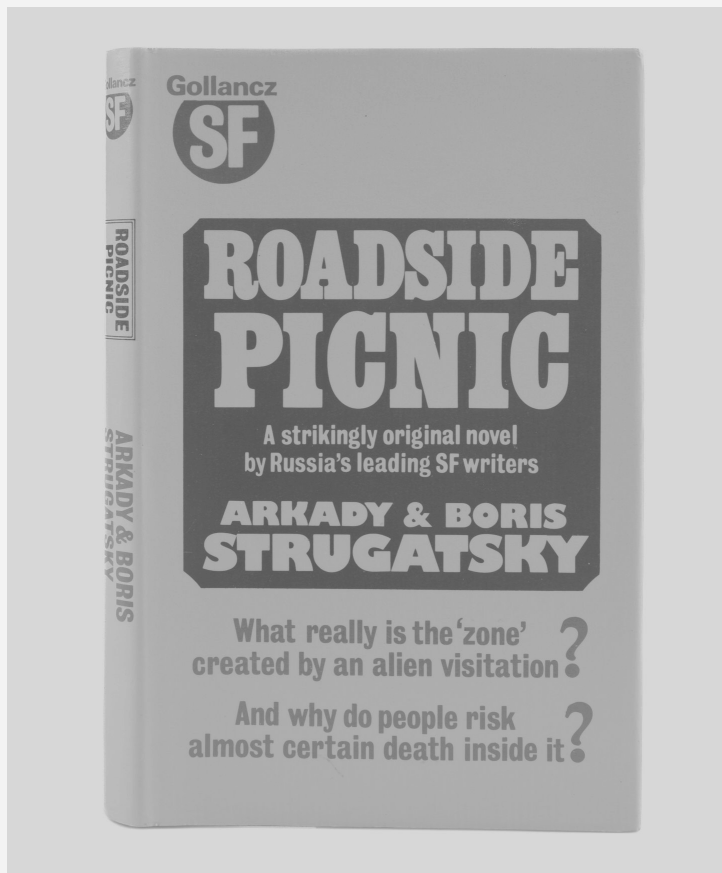


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