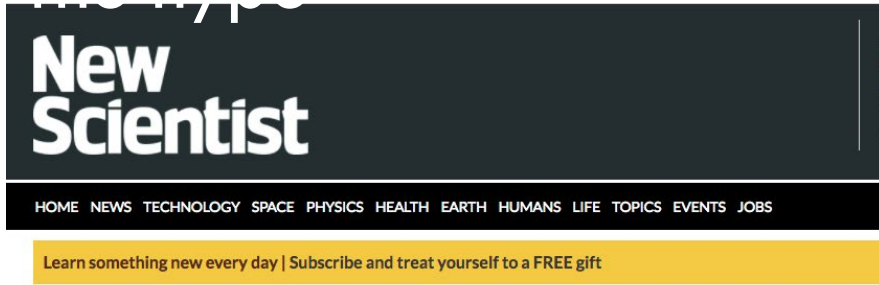


Photography, Art, and AI

CS180: Intro to Computer Vision and Comp. Photo
Alexei Efros, UC Berkeley, Fall 2024

The Hype



Home | News | Technology

DAILY NEWS 29 June 2017

Artificially intelligent painters invent new styles of art



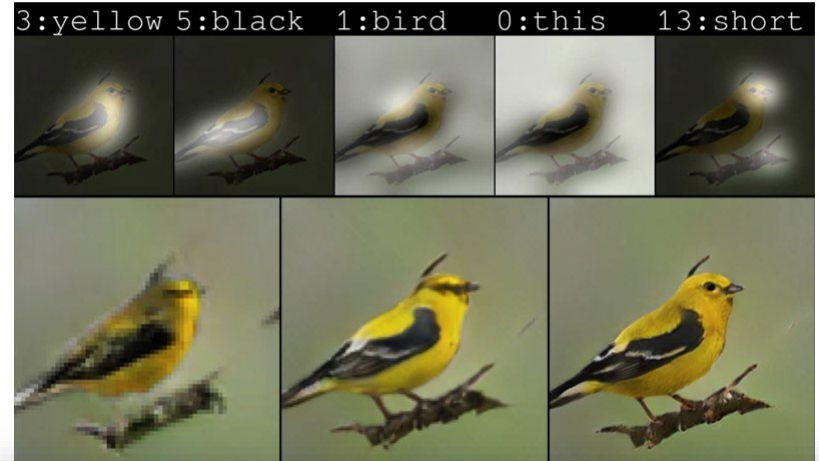
Art for the AI generation
Art and Artificial Intelligence Laboratory, Rutgers University

Slide by Aaron Hertzmann

Microsoft's new drawing bot is an AI artist

Sarah Perez @sarahintampa / Jan 18, 2018

Comment



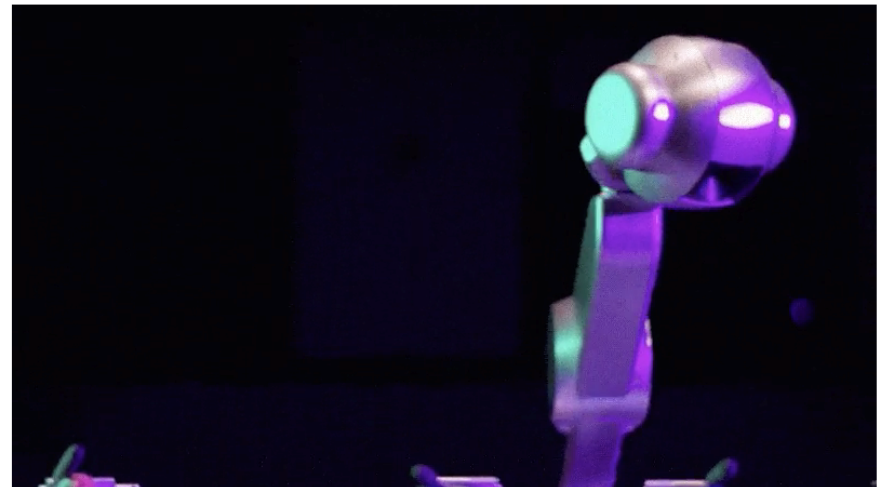
This Artificially Intelligent Robot Composes and Performs Its Own Music



George Dvorsky

6/14/17 11:25am • Filed to: WE ARE THE ROBOTS

24 5



We've been here before...



Daguerre

HISTORIQUE ET DESCRIPTION

DES PROCÉDÉS

DU

DAGUERRÉOTYPE

et du Diorama,

PAR DAGUERRE,

Peintre, inventeur du Diorama, Officier de la Légion-d'Honneur,
membre de plusieurs Académies, etc.

Nouvelle Edition,

CORRIGÉE, ET AUGMENTÉE DU PORTRAIT DE L'AUTEUR.



Paris,

ALPHONSE GIROUX ET C^{ie}, ÉDITEURS,

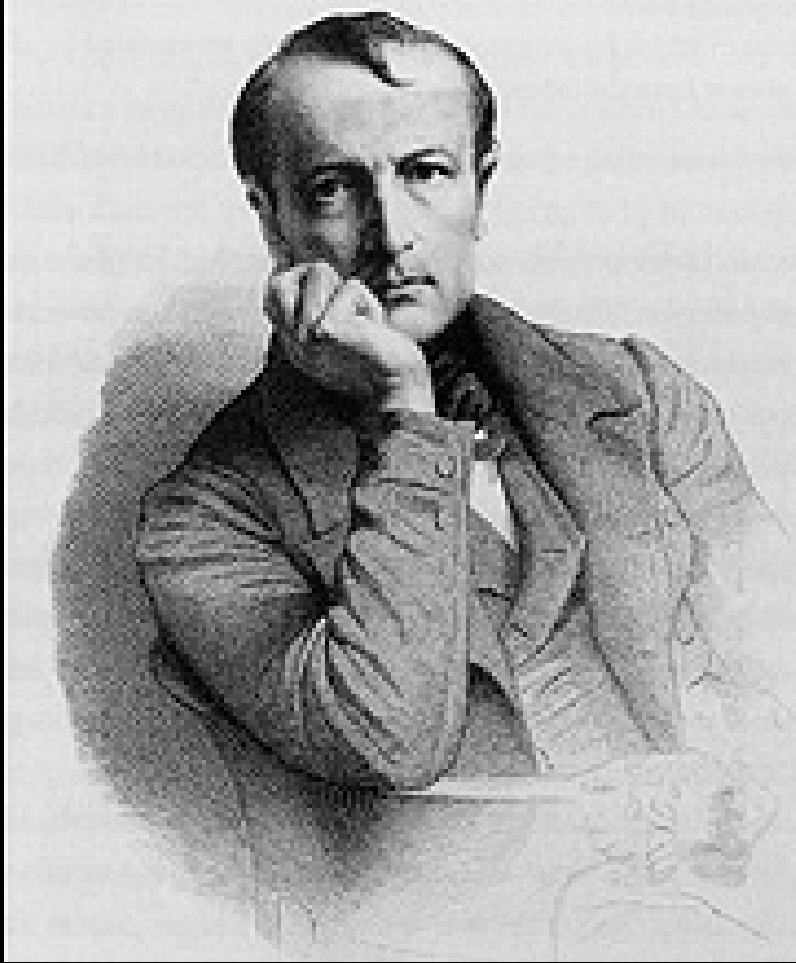
RUE DU COQ-SAINT-HONORÉ, N° 7,

où se fabriquent les Appareils;

ET CHEZ LES PRINCIPAUX LIBRAIRES, PAPETIERS,

Marchands d'Estampes et Opticiens.

1839.



“From today,
painting is dead”
— Paul Delaroche, 1839



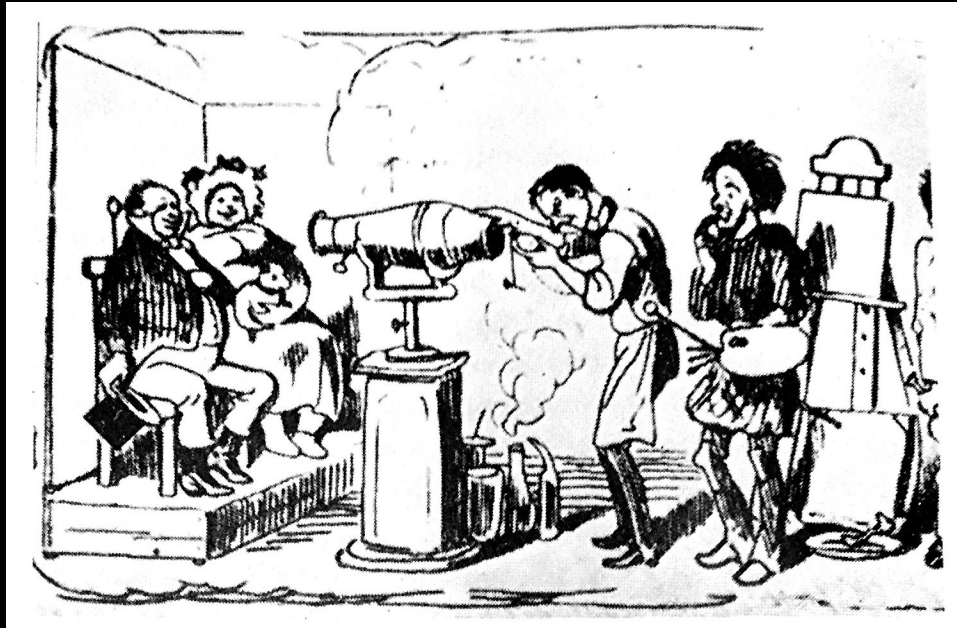
“This is the end of Art.
I am glad I have had my day.”
J.M.W. Turner, 1839

Portraiture in 1838





1851: Jabez Hogg Making a Portrait in Robert Beard's Studio



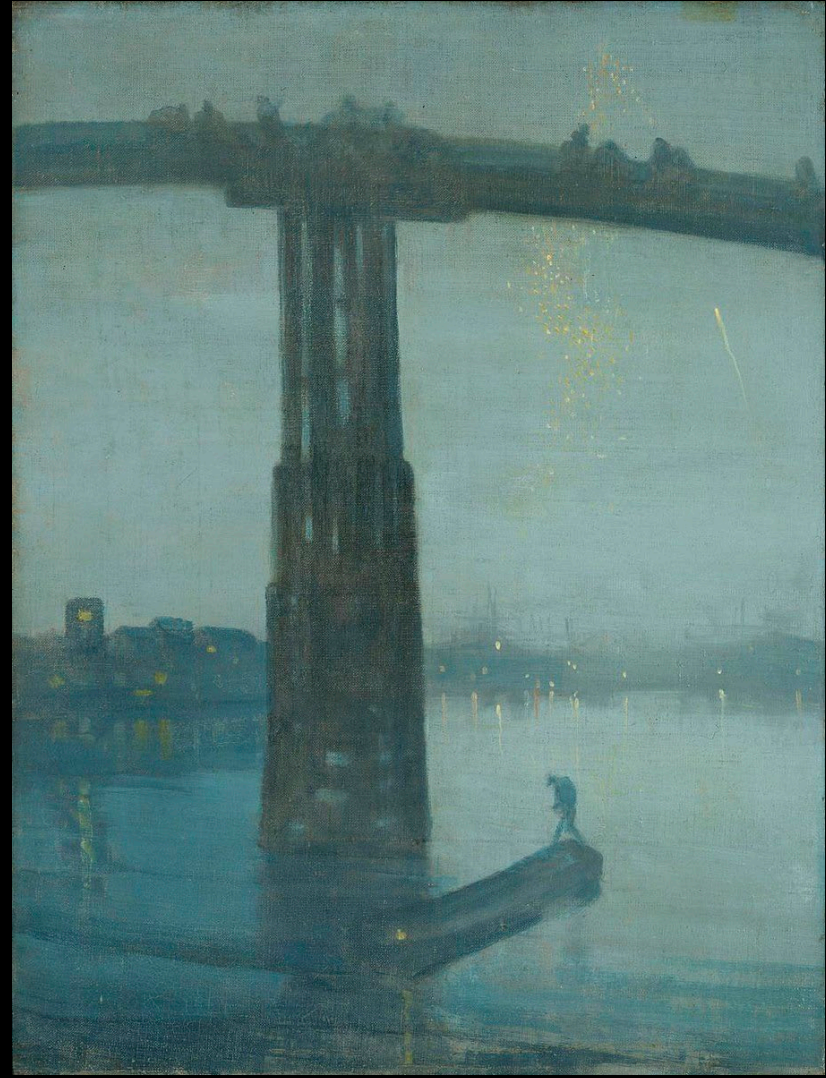
Hosemann, 1843

“One knows that *photography has harmed painting considerably, and has killed portraiture especially, once the livelihood of the artist.*”

- Henry Le Secq, painter-photographer, 1863

“The imitator is a poor kind of creature. If the man who paints only the surface he sees before him were an artist, the king of artists would be the photographer. It is for the artist to do something beyond this...”

– J.M. Whistler, 1878 (paraphrased)





“Accurate drawing is not the essential thing to aim at, because the reflection of reality in a mirror, would not be a picture at all, no more than a photograph.”

– Vincent Van Gogh, 1888 (paraphrased)

Photography: Summary

At first, it looked like photography automated art

Many artists feared and disparaged it

Actual outcomes:

These trends often repeat with each new art technology

- New art form (photography)
- Invigorated old art forms (painting)
- Jobs affected: portraiturists replaced with photo studios
- Image creation made available to hobbyists

“In those early days, animators were frightened of the computer. They felt it was going to take their jobs away. We spent a lot of time telling people, ‘No, it’s just a tool—it doesn’t do the creativity!’”

— Alvy Ray Smith, on the very early days at NYIT and Lucasfilm Graphics Group



Read Aaron Hertzmann to learn more...



Aaron Hertzmann's blog

cinema.mosfilm.ru

When Machines Change Art

At a few times in history, new technologies came along that changed the way we make art. Machines, chemicals, and/or algorithms replaced some of the steps that artists did, changing how we made art—and, sometimes, radically transforming what we thought think art is.

Now seems like one of those times.

When change happens, it's surprising, and it's tempting to see it in extremes: the new technology is either going to improve everything or ruin everything. But the reality of how past technologies changed art is nuanced and complex, with different effects for different communities in the short-range and then the long-range.

In this post, I'm specifically focused on technologies that automate (or seem to automate) steps of the artistic process. What can past examples of such technologies changing art have in common, and do they have lessons for the current moment?

https://aaronhertzmann.com/2022/12/17/when-tech-changes-art.html?fbclid=IwY2xjawG7NcJleHRuA2FlbQIxMAABHVCmzPFKsjNC7Z3GbqbJx94tnIPuOkaAoIQE4BvOSK6LkrUFTIdGRHsoaw_aem_8WfQsdc4DQuzLcQ9o64U-A

How to take a Good Photo?

&

How to not be scared in
a Modern Art Museum?

What Makes a Great Picture?



© Robert Doisneau, 1955

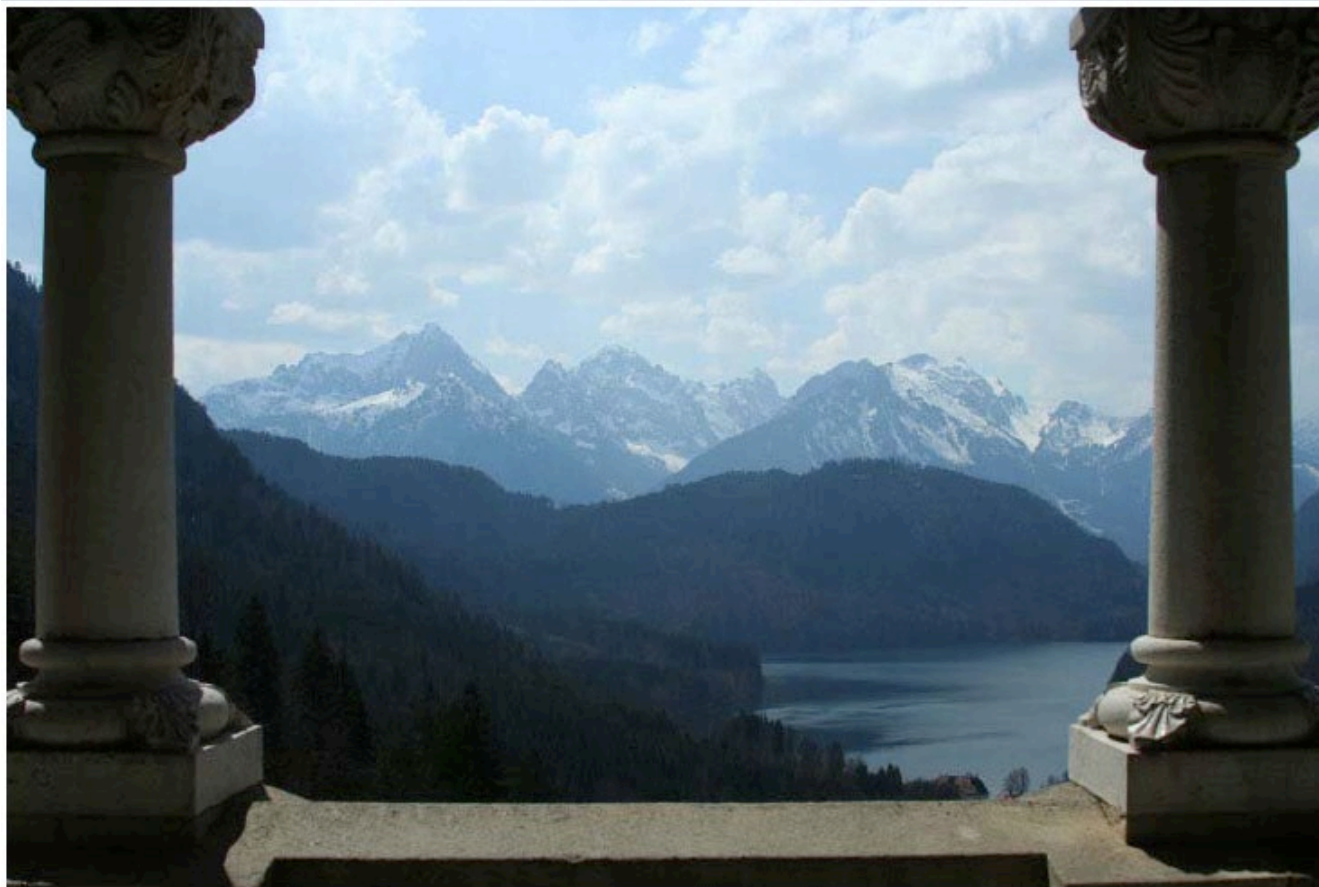
*With many slides from Yan Ke and Fredo Durand,
as annotated by Tamara Berg*

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Alexei Efros, UC Berkeley, Fall 2024

Framing

“Photography is all about framing. We see a subject -- and we put a frame around it. Essentially, that is photography when all is said and done.”

-- from photo.blorge.com



Frame serves several purposes:

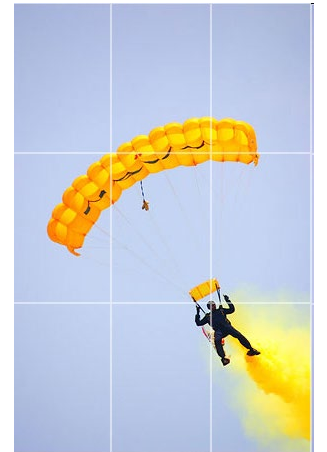
1. It gives the image depth
2. If used correctly, framing can draw the eye of the viewer of an interest to a particular part of the scene.
3. Framing can bring a sense of organization or containment to an image.
4. Framing can add context to a shot.

Examples of nice framing



<http://flickr.com/photos/paulosacramento/226545698/>
<http://flickr.com/photos/chrisbeach/13868545/>
<http://flickr.com/photos/74531485@N00/929270814/>
<http://flickr.com/photos/freakdog/223117229/>
<http://flickr.com/photos/cdm/253805482/>

Rules of Thirds



Other examples



Don't center, especially for motion



By Fredo Durand

Don't center, especially for motion



By Fredo Durand

... or do center



By Fredo Durand

Leading Lines





By Fredo Durand

More examples



Textures and Patterns



Simplicity

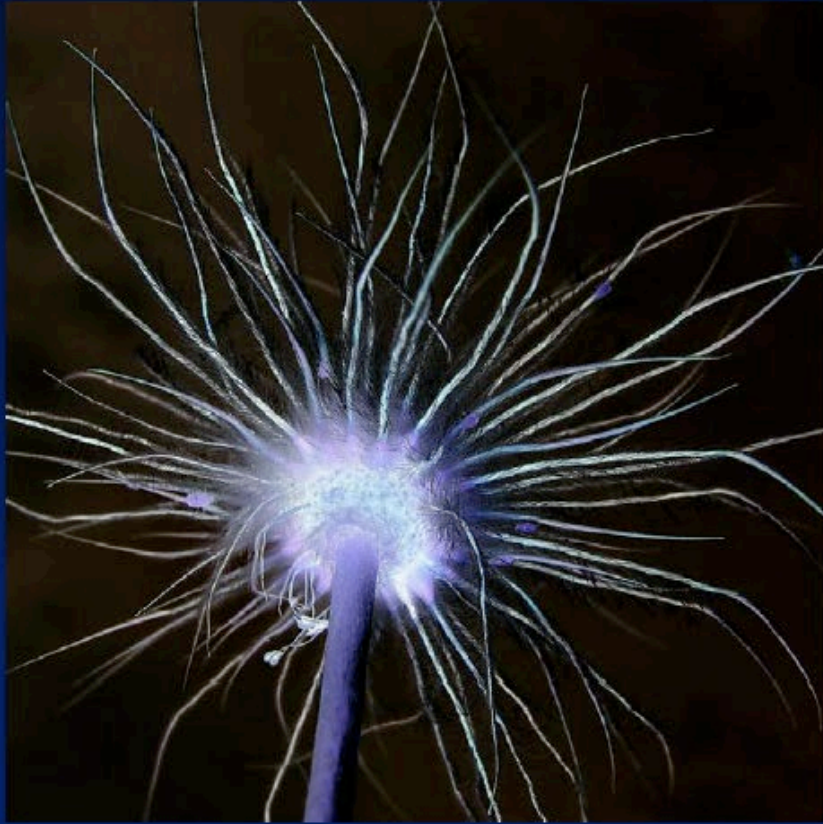


“Look Into” by Josh Brown @ Flickr



Prof - Obvious what one should be looking at
ie easy to separate subject from the
background. Snap – unstructured, busy, filled
with clutter.

Simplicity



Simplicity



B&W for Simplicity



B&W for Simplicity







Photo by A. A. Efros

...but not always



...but not always

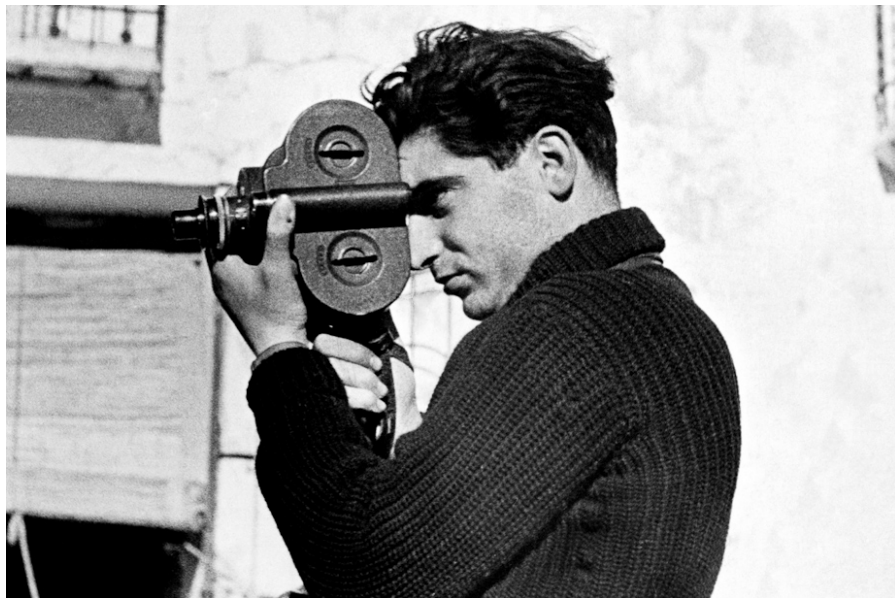


Crop for Simplicity



By Fredo Durand

If your pictures aren't good enough, you're not close enough" — Robert Capa



Simplicity for Portraits – just move



<https://vimeo.com/29722267>

Get low

Try to be at eye level



Bad



By Fredo Durand

Better



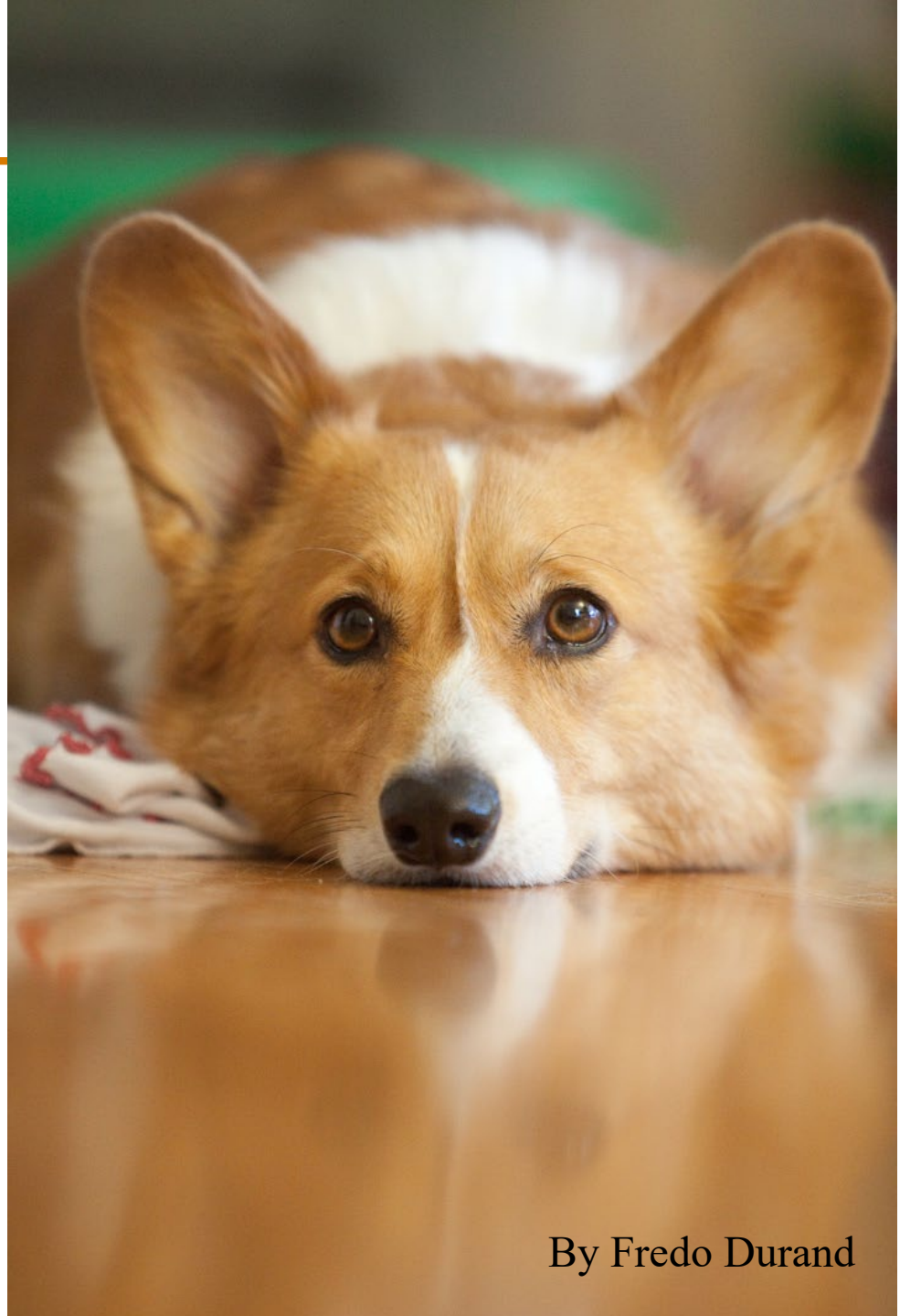
Bad angles

<https://www.youtube.com/watch?v=8EmRZO9fwvk&feature=youtu.be>



By Fredo Durand

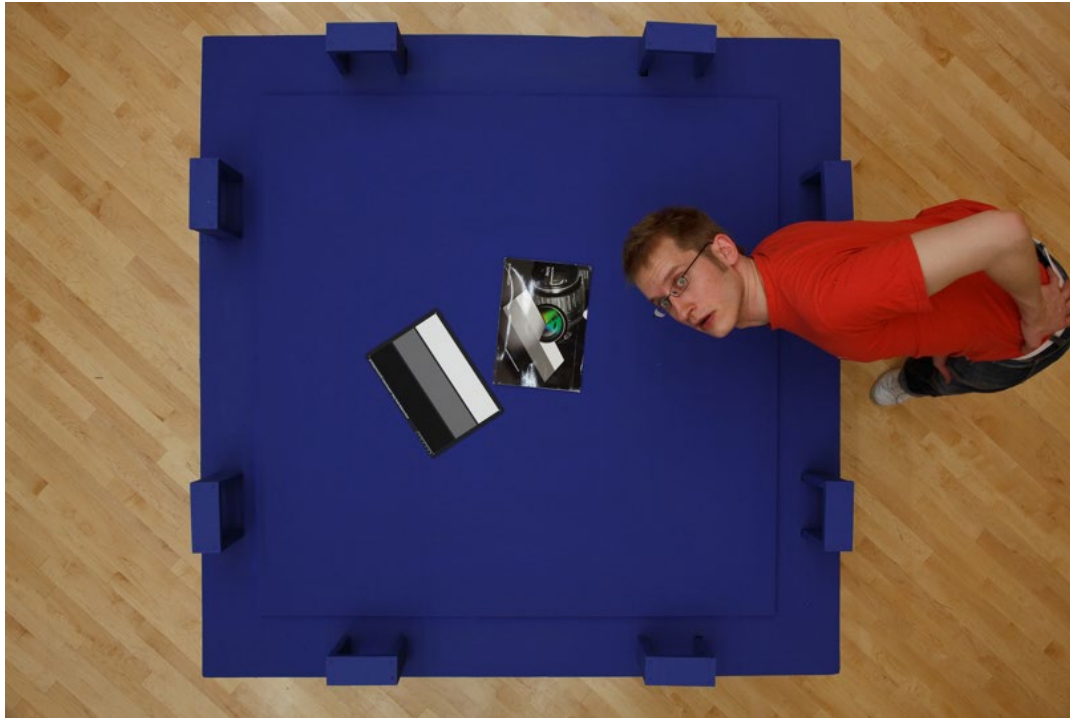
Eye level



By Fredo Durand

Or really get high

As usual, follow a rule
or really break it.



By Fredo Durand

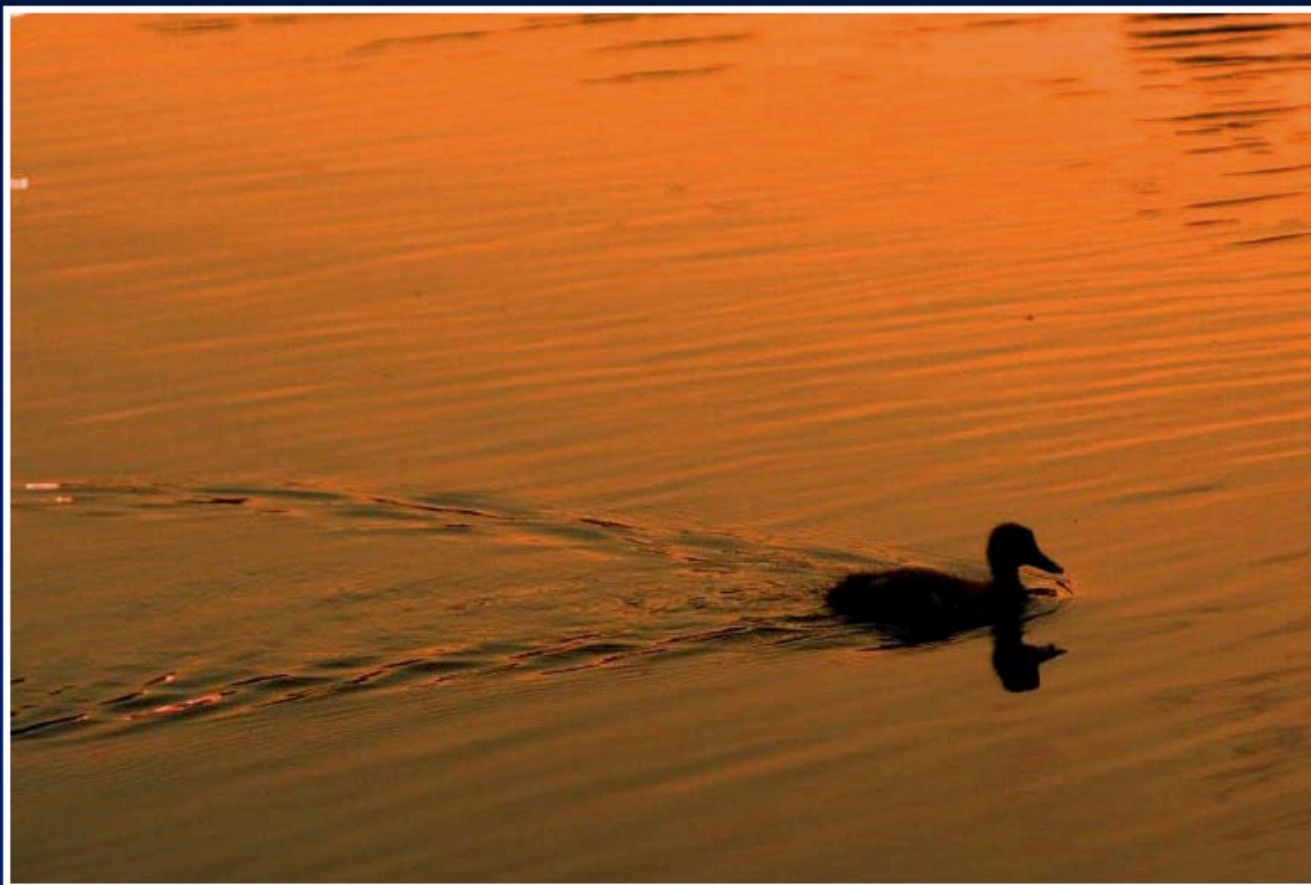
Front Lighting



Side Lighting



Back Lighting



Go in the shade

Light is more diffuse

Bad



Better



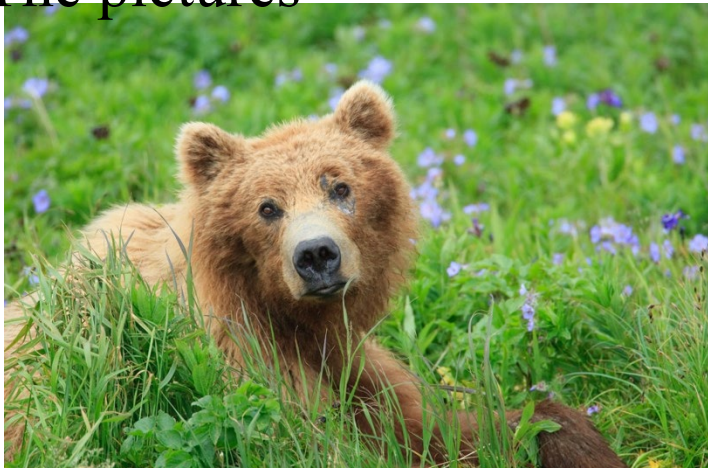
Overcast days are the best

Just don't put the sky in the frame

The weather conditions



The pictures



Other overcast-day pictures



By Fredo Durand

Bottom line

**Don't get married
on a sunny day!**



Cloudy day



Best time of day: sunset & sunrise

+/- 1 hour

“Golden hours”

Night photography: always near sunset/sunrise

- because of nice diffuse light

Mid day:
often not great

less than 1 hour
after sunrise/
before sunset

During sunset or
sunrise

After sunset



By Fredo Durand

“Golden Hour”



After sunset: blue hour



Blue Hour (Russian River)



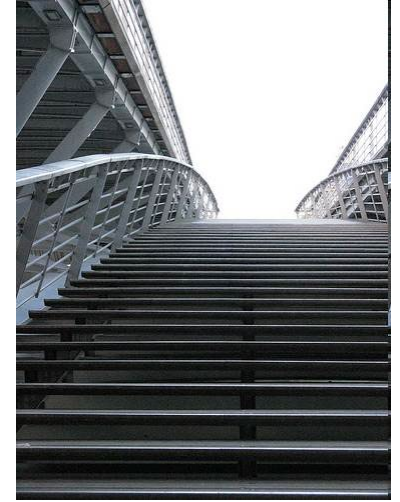
Anyone can take great pictures...



I am a sucky photographer...



...but I am a pretty good photo critic!



<http://flickr.com/photos/aaefros/>

of my Paris photos on Flickr: 32

Total # of my Paris photos: ~1250

~2%

The Postmodern Photographer

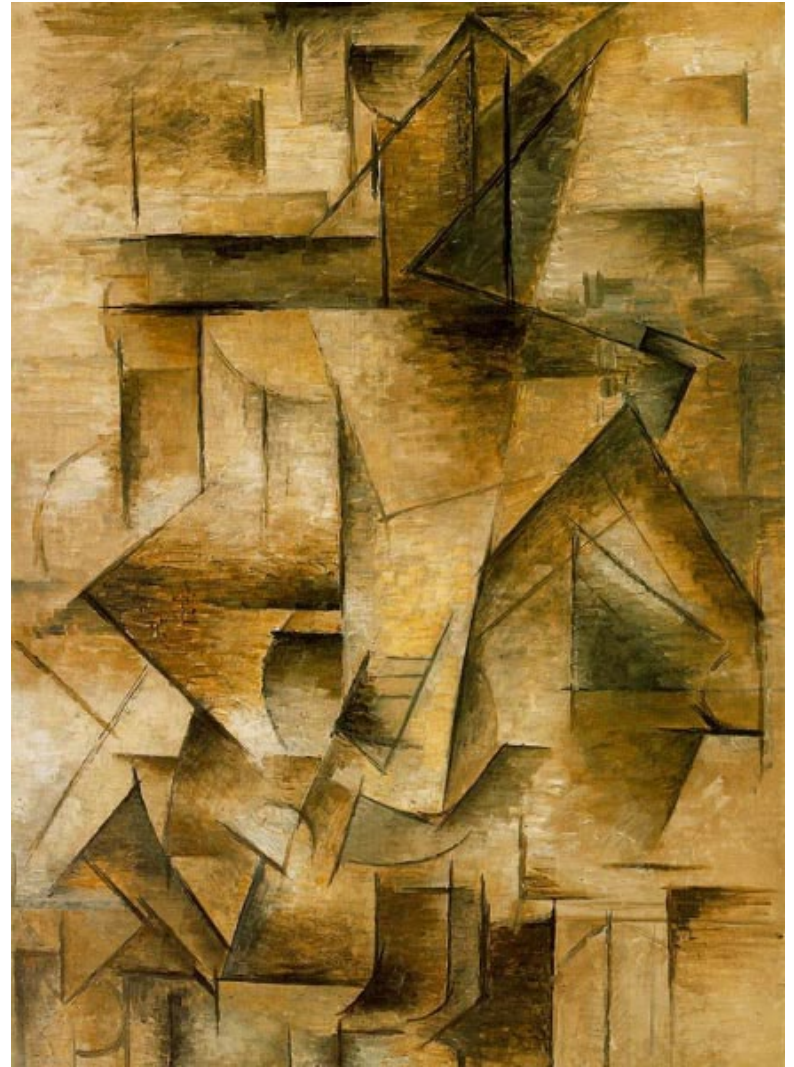
The Old Days: a pre-process

- Load film
- Find subject
- Position camera
- Set all the settings “just right”
- Take a deep breath...
- ...Press button!

The New Digital Days: a post-process

- Get a 64 GB memory cartridge
- Take pictures like there is no tomorrow!!!
- ...
- Back home, spend hours of agony trying to find 1-2 good ones

Simplicity to Complexity



Enjoying your next trip to (SF)-MOMA



Pablo Picasso
The Guitar Player (1911)

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Simplistic Art PCA

Some “Principal Components” of Art:

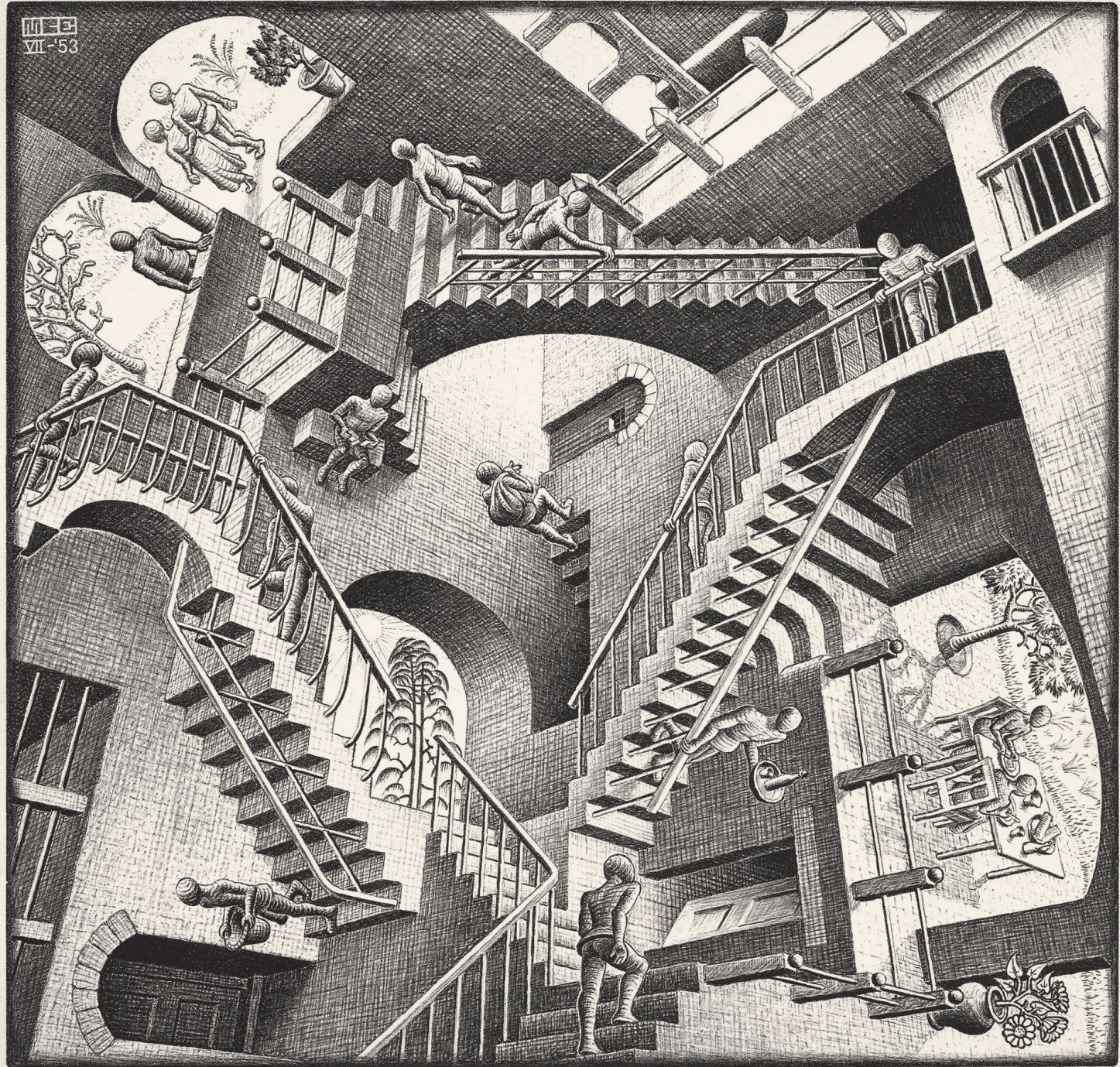
- Cute ideas / illusions / clever tricks
- Direct Visceral Pleasure
- Familiarity / Nostalgia
- Art-Historical “Context”

Cute Ideas / Illusions / Clever Tricks



Salvador Dalí
*"Gala Contemplating the Mediterranean Sea,
which at 30 meters becomes the portrait
of Abraham Lincoln", 1976*

VI-53



M.C. Escher



Magritte

Magritte

Rene Maritte

People who liked this also liked...



Waipoua Bay
554 km East



Mamanuca Islands
2430 km North



Erawan Falls
5714 km North West

Scott Kelly and Ben Polkinghorne

Direct Visceral Pleasure



Jan van Eyck, *The Arnolfini Marriage* (c.1434)



Olafur Eliasson, The Weather Project



Mark Rothko



Mark Rothko

Familiarity / Nostalgia



© Michael Galinsky, 1989
(from "Malls Across America")



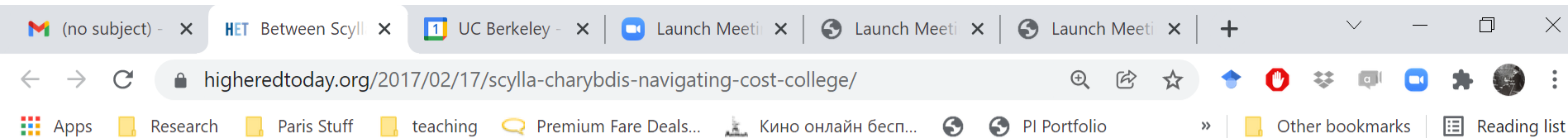
Edward Hopper



Alberto Giacometti

Art-Historical “Context”

Cultural Context



Between Scylla and Charybdis: Navigating the Cost of College

February 17, 2017

By Geoffrey L. Brackett

One of my favorite episodes in Homer's *Odyssey* is one of the most fearsome. It involves the sailing between the mysterious cave-dwelling monster Scylla and the terrifying, ship-destroying whirlpool known as Charybdis. There is something about having to manage two supernatural threats at once that makes Odysseus' journey

SHARE THIS
POST

SHARE THIS...



Cultural Context

Browser tabs: (no subject), Still Chum, HET Between S, UC Berkel, Launch M, Launch M, Launch M. Address bar: texastribune.org/2016/01/05/cruz-trump-alliance-again-shows-signs-fraying/. Bookmarks: Apps, Research, Paris Stuff, teaching, Premium Fare Deals..., Кино онлайн бесп..., PI Portfolio, Other bookmarks, Reading list.

EXTENDED: Help us unlock \$30,000 in matching funds. Donate now to double your impact.

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★ THE TEXAS TRIBUNE

DONATE

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EVENTS

AUDIO

DATA

LOG IN

SIGN UP



Learning Loss

Abortion Access

Evictions Rising

Find Your Political Districts

COVID-19 Tracker

Still Chums? Cruz Says Trump Jumped the Shark

The political bromance between GOP presidential hopefuls Donald Trump and U.S. Sen. Ted Cruz appeared to be unraveling Tuesday after Trump raised the issue of Cruz's Canadian birth, and Cruz suggested his rival has jumped the shark.

BY **PATRICK SVITEK** JAN. 5, 2016 8 PM CENTRAL

Windows taskbar: Search bar (Type here to search), Task View, File Explorer, Chrome, PowerPoint, Photos, Weather (69°F), System tray (4:42 PM, 12/1/2021, ENG, 5 notifications).

Cultural Context

Browser tabs: (no sub...), Red we..., Still Ch..., HET Betwe..., UC Ber..., Launch x, Launch x, Launch x, +

Address bar: thesouthafrican.com/news/red-wedding-five-killed-in-shootout-eastern-cape-manhunt-laun...

Browser icons: Apps, Research, Paris Stuff, teaching, Premium Fare Deals..., Кино онлайн бесп..., PI Portfolio, Other bookmarks, Reading list



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& FINANCE

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Red wedding: Five killed in shootout during Eastern Cape nuptials

A manhunt has been launched after gunmen stormed a wedding in the Eastern Cape and opened fire on unsuspecting guests.

Windows taskbar: Search (Type here to search), Taskbar icons (File Explorer, Chrome, PowerPoint, Teams), System tray (69°F, 4:43 PM, 12/1/2021, ENG, 5 notifications)

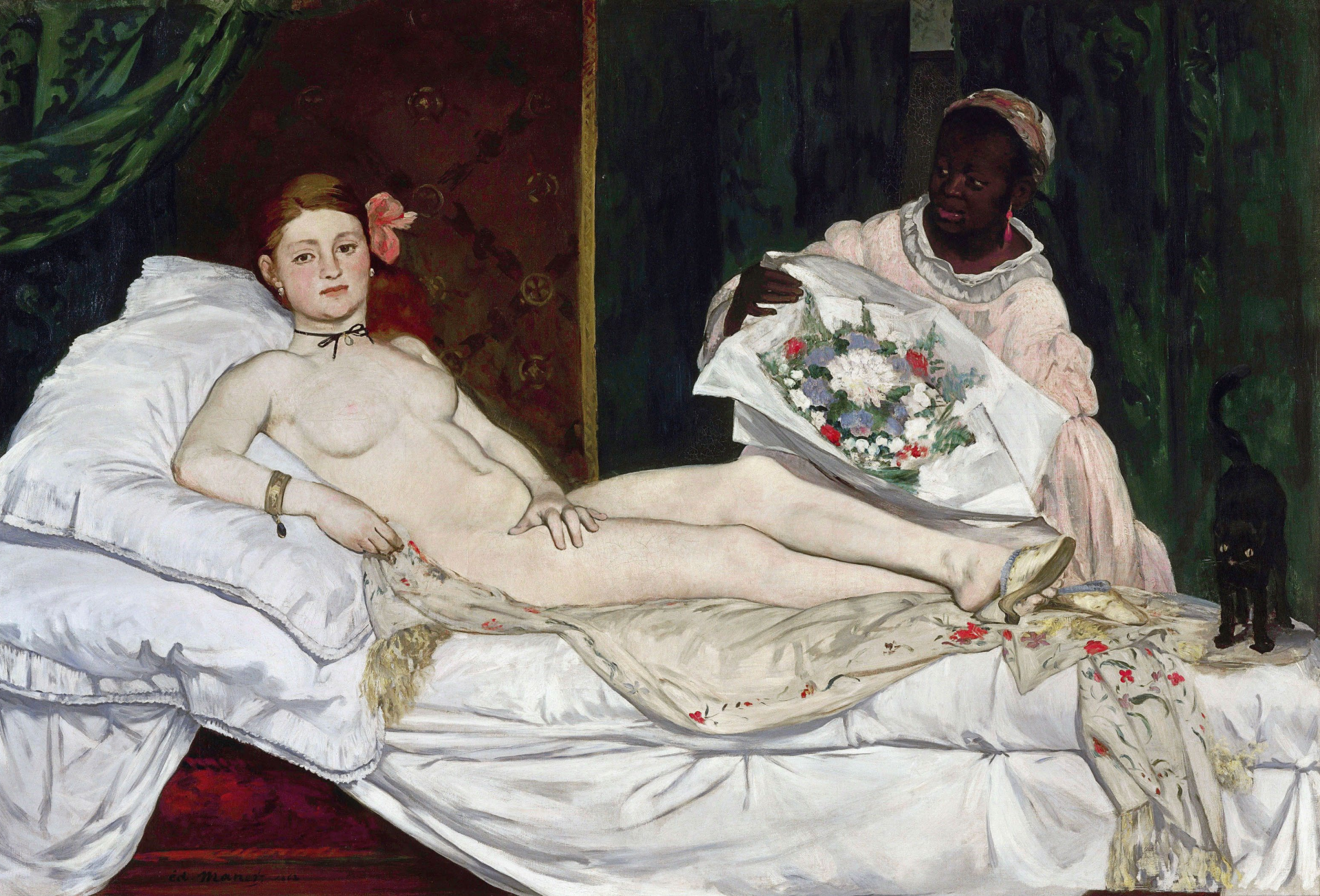
Cultural Context



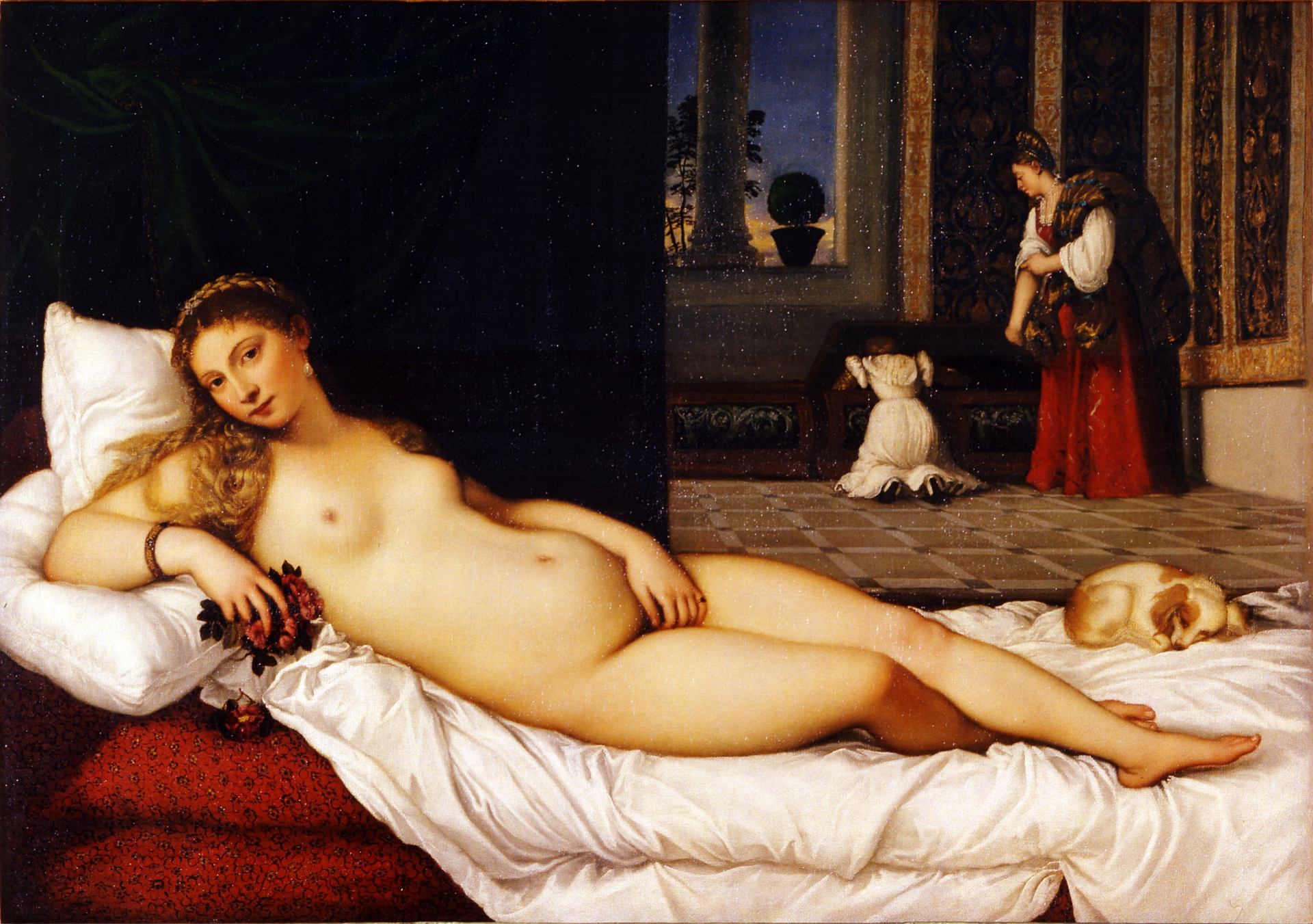
WIKIPEDIA
The Free Encyclopedia

☰ St. Bartholomew's Day massacre

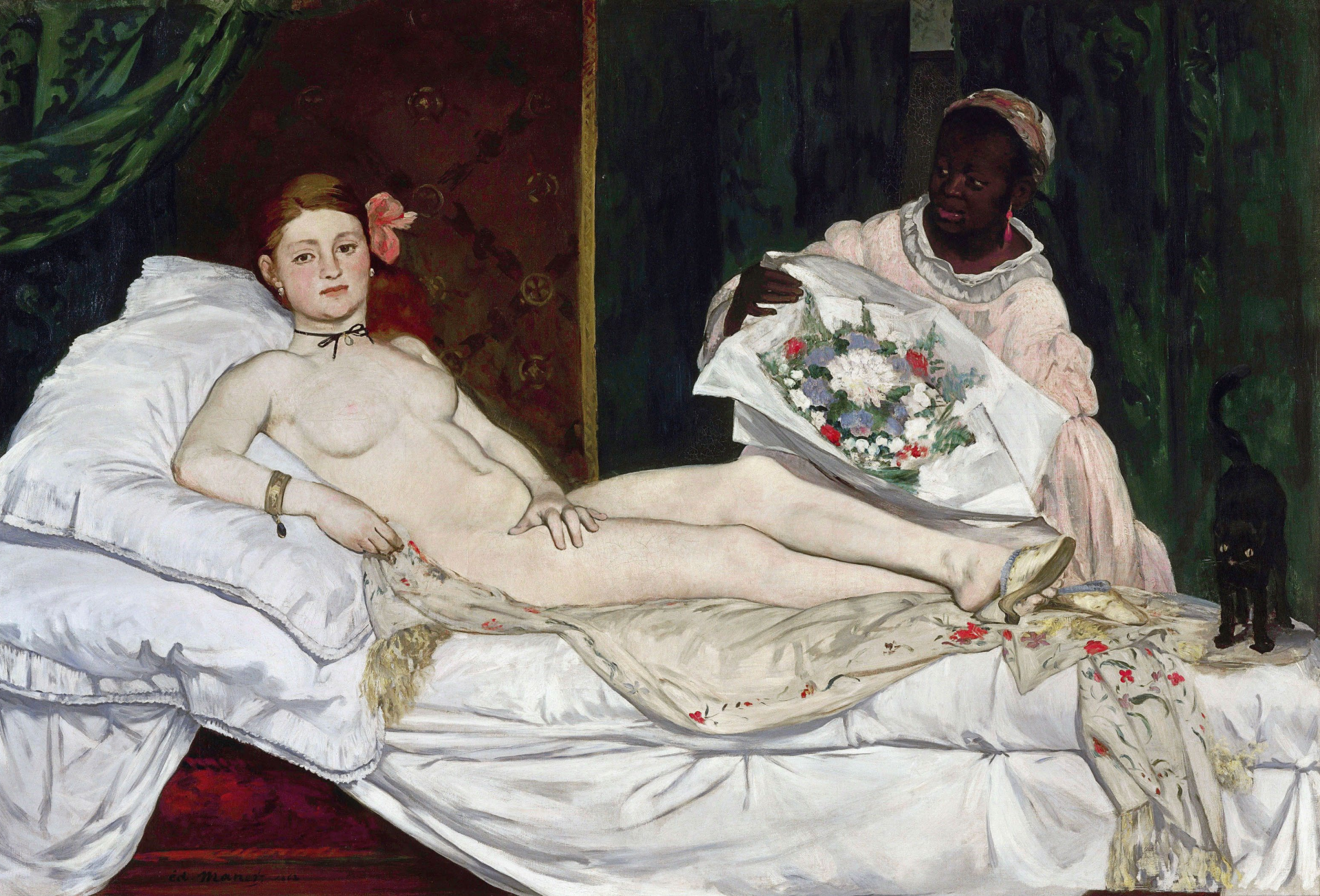
[Article](#) [Talk](#)



Édouard Manet, "Olympia" (1865)



Titian, "Reclining Venus" (1532)



Édouard Manet, "Olympia" (1865)



Shepherd Fairey



Shepherd Fairey



Banksy



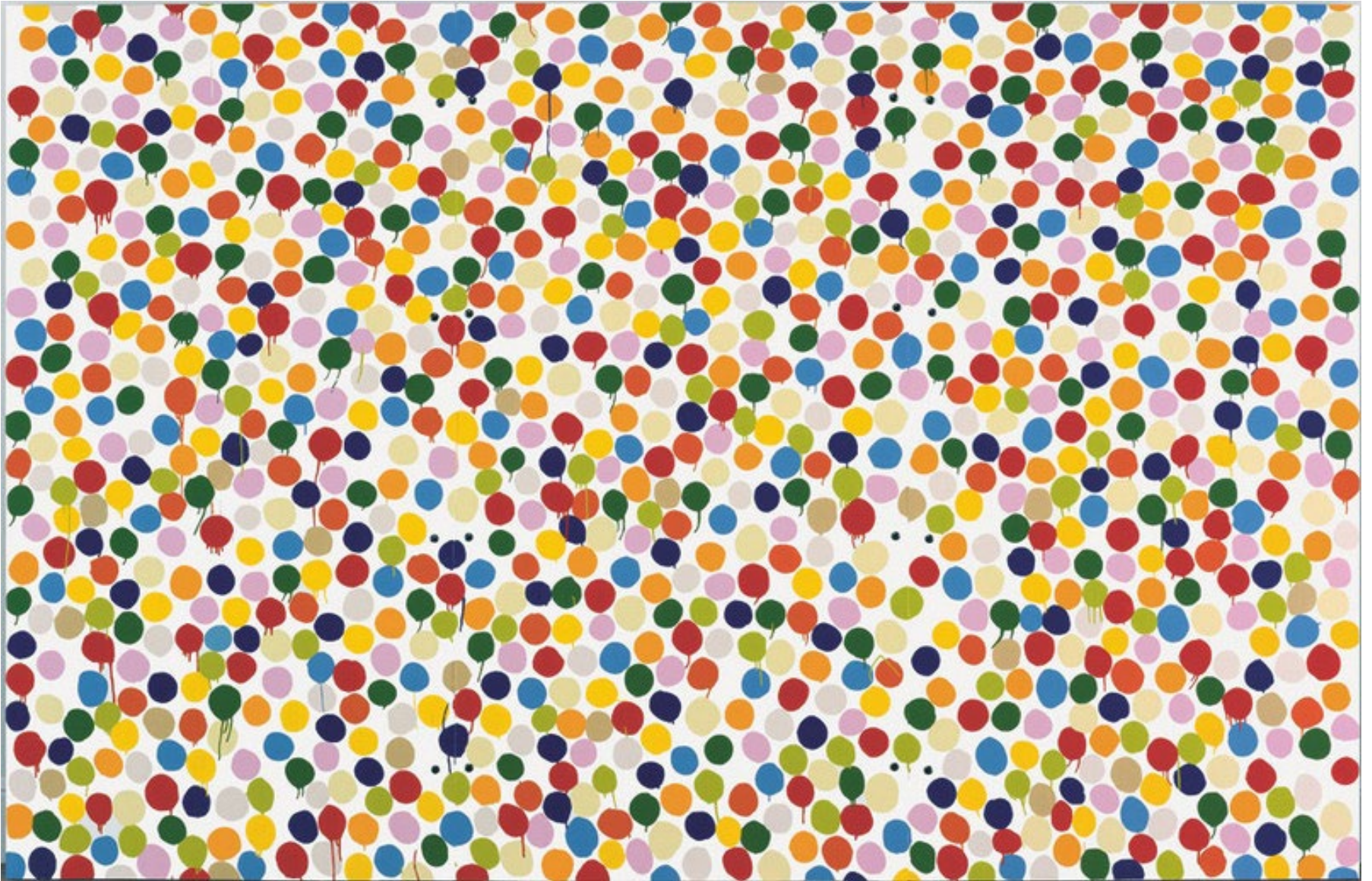
Damien Hirst, Spot Paintings (1968--)



Zlotnikov, "Signals" (1965)



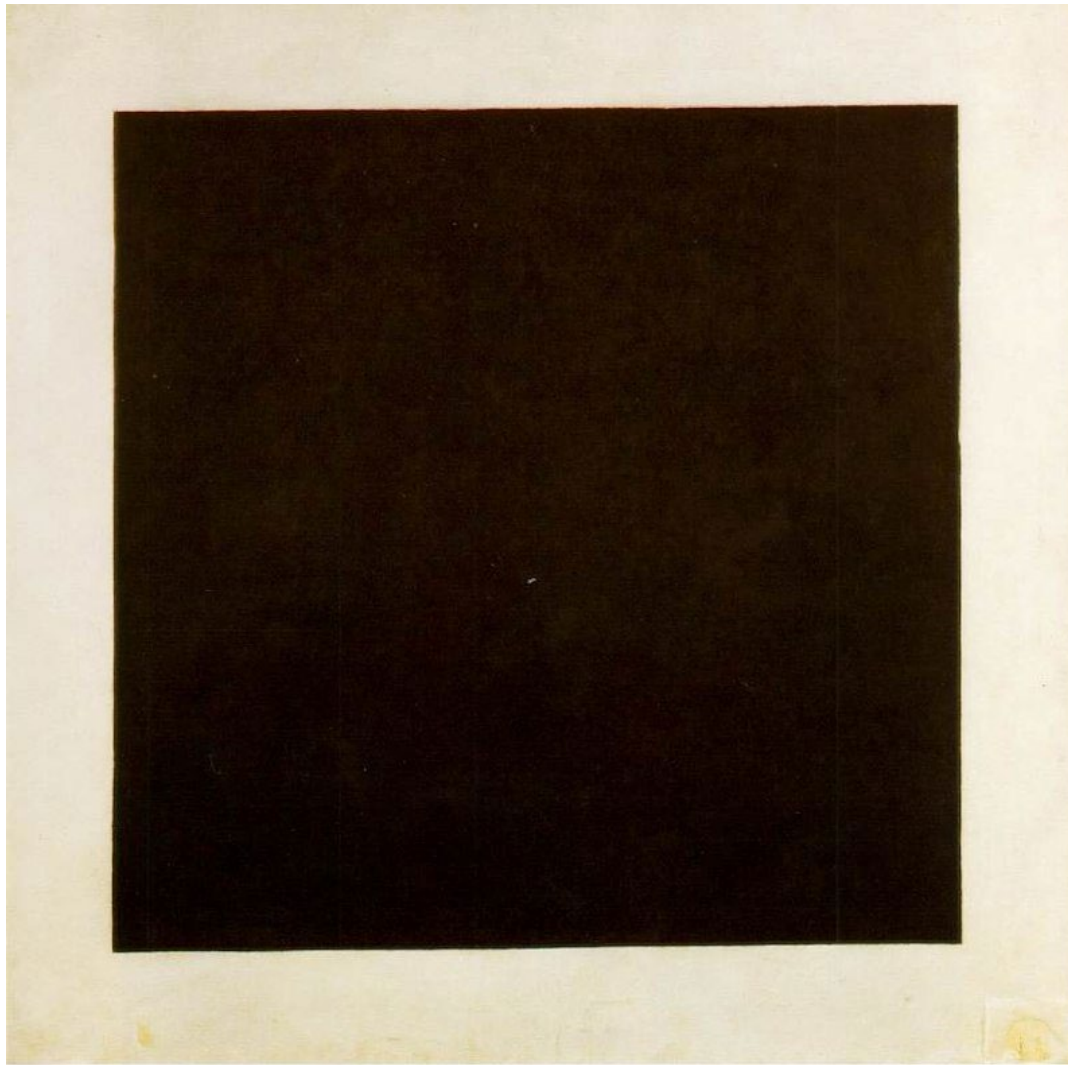
Damien Hirst, Spot Paintings (1968--)



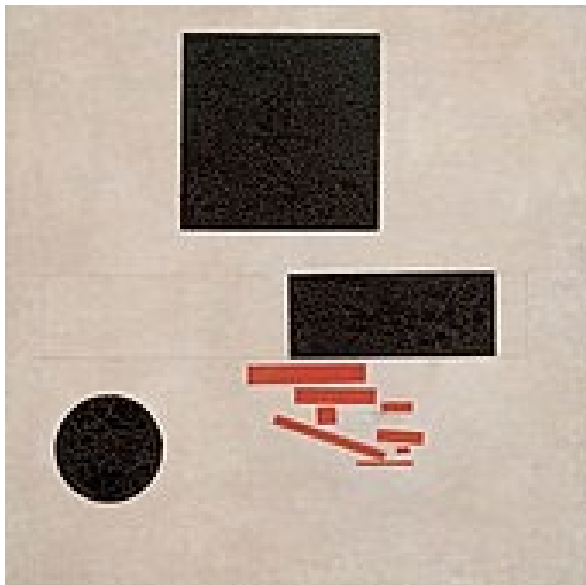
Damien Hirst



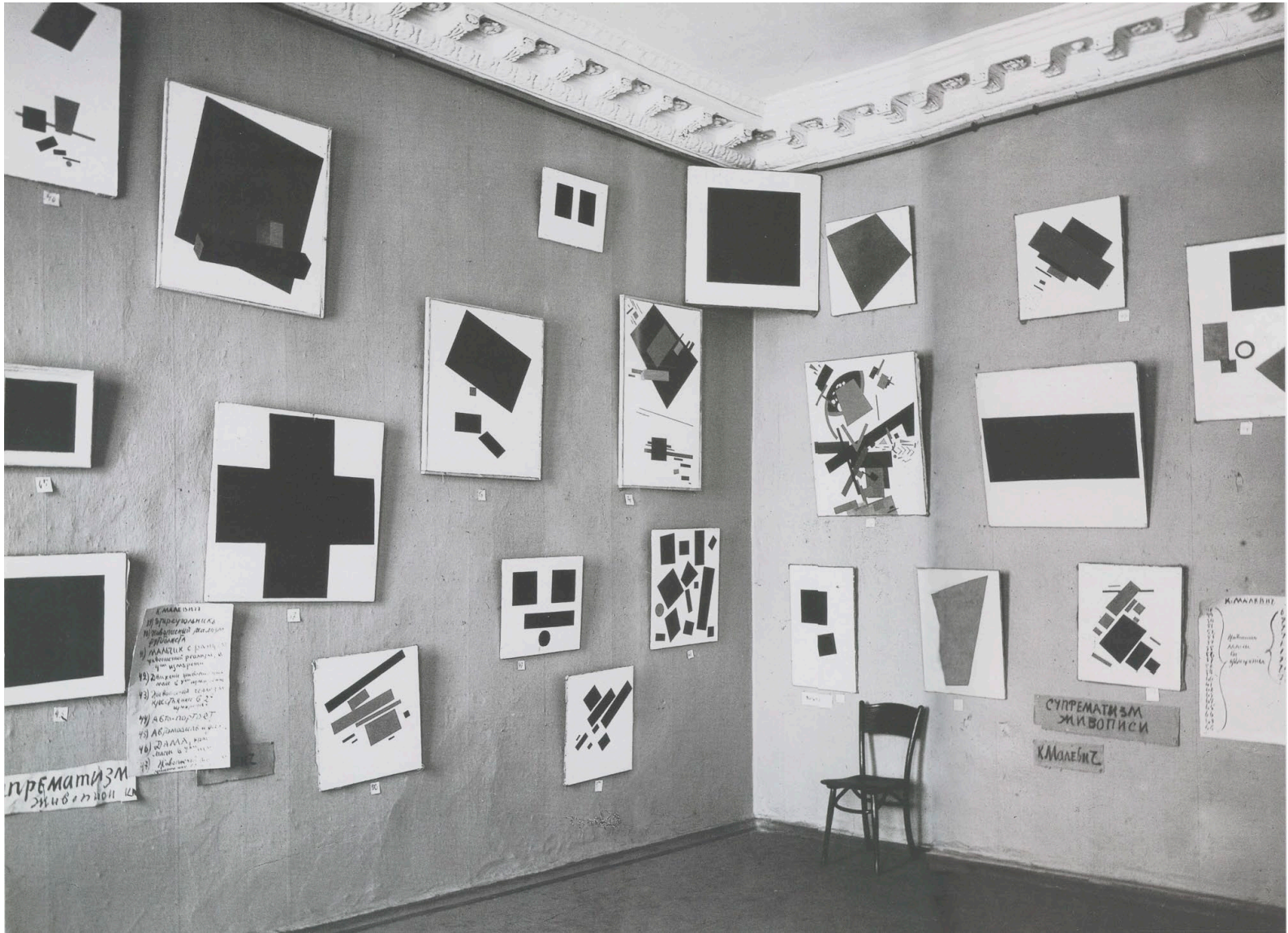
Direction of change



Malevich, "Black Square" (1915)



Malevich

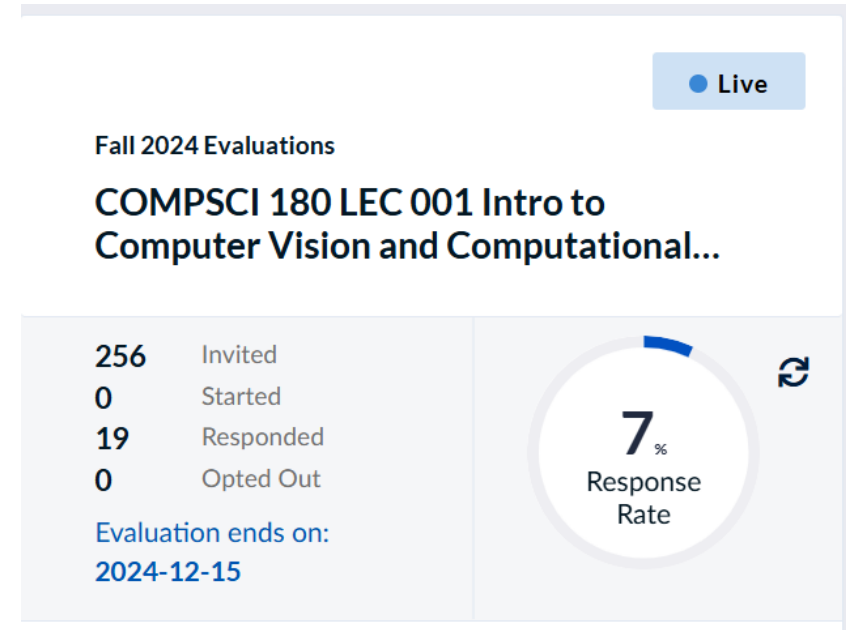
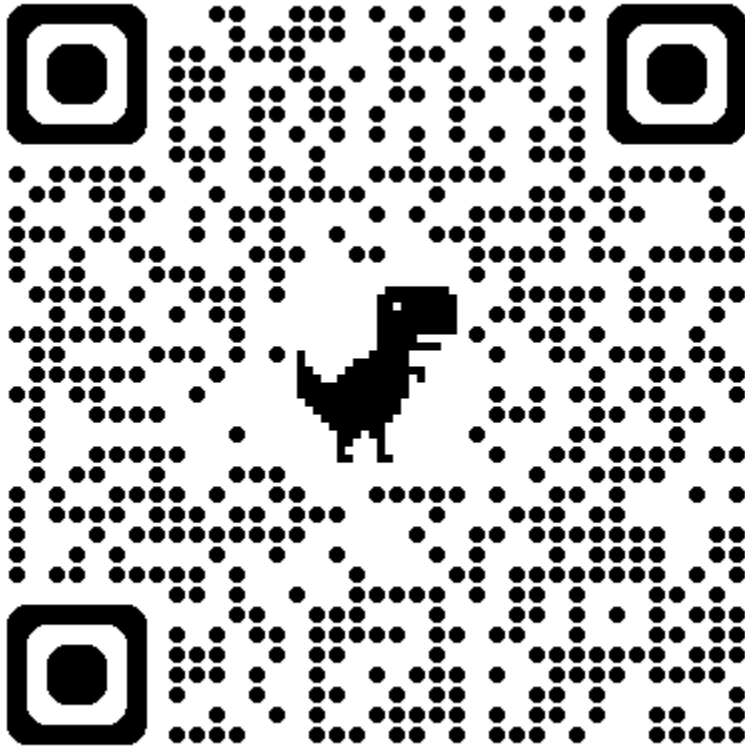


“Black Square” as exhibited (1915)

THANK YOU!



But wait... “one more thing!”



Everyone gets 0.5 cookie,
if we get to 70%...

