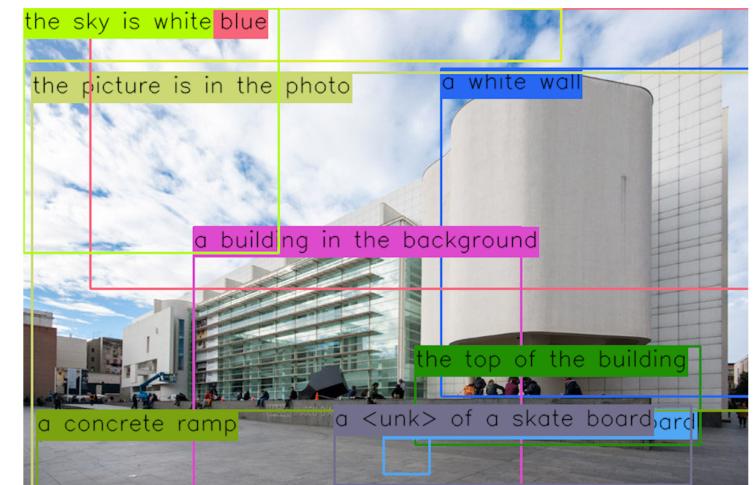


A Crack within the museum

MACBA



COLLABORATORS

Alison
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In recent years, commercial systems based on artificial intelligence have emerged and have been gaining ground in the daily life of large cities, however almost imperceptibly to end users. We are in contact with these systems when we use translation services, product recommendation, object and person detection, and many other services. These systems are trained with large volumes of data, and, inevitably, present some type of ideological bias.

From the analysis of contemporary artwork figures using the Art Decoder* platform, we realized the possibility of looking at these systems from a critical perspective. We present this zine, with works selected collectively from the digital collection of the Museu d'Art Contemporani de Barcelona (MACBA), being concerned to highlight some of the ideological biases present in some of those commercial computer vision systems, which, as we have seen in our research, follow a capitalist, consumerist and sometimes misogynistic logic. In addition, we highlight other moments when our platform is unable to understand artworks resulting in interpretations of great poetic value.

This publication wouldn't be possible without the support of CtrlZ.AI organization members, and the commitment of the participants of the workshop "A Crack Within the Museum", carried out by Lucas Nunes Sequeira and Rafael Tsuha members of GECID**, on January 30, 2020, at CtrlZ.AI, Barcelona.

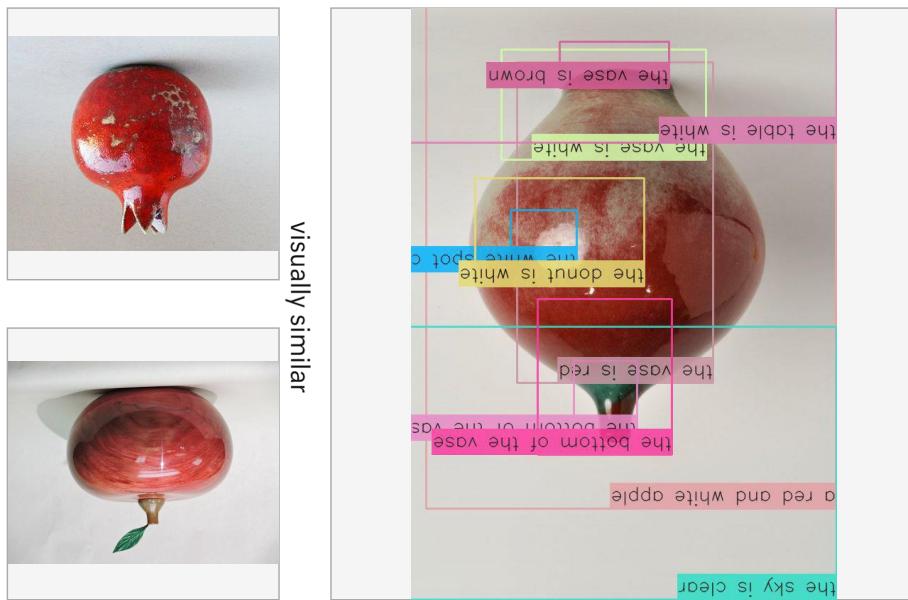
Good reading!

* Art Decoder is a platform created by Gabriel Pereira and Bernardo Fontes, part of our group and have been used since 2018 to reveal the behavior of commercial AIs (Amazon Rekognition, Google Cloud Vision, Microsoft Azure, ClarifAI, Densecap, Facebook Detectron, IBM Watson and Darknet YOLO APIs) from the use of contemporary art images. Another recent project with Art Decoder was the short movie Recording Art (<https://vimeo.com/321866181>) and the academic article "Ways of Seeing with Computer Vision: Artificial Intelligence and Institutional Critique", both made by Gabriel Pereira and Bruno Moreschi as part of Deviant Practice Grant - Van Abbemuseum.

** We are part of the Grupo de Experiências Críticas em Infraestruturas Digitais (GECID), an activist group of researchers from different areas of knowledge coordinated by artist Bruno Moreschi and located at the Comunidade de Arte e Inteligência Artificial (CAIA) / Center for Artificial Intelligence (C4AI), coordinated by professor Fabio Cozman / Inova USP - University of São Paulo, Brazil. Our work involves a set of experiences that aims to think and problematize contemporary infrastructures based on a logic different from that applied in technology centers in the Global North. We are interested in encouraging studies that think about technology not in an abstract way, but inserted in determined contexts, with social implications.

category:	is adult content?	False	3%	adult
category:	is racy content?	False	3%	racy
labels:	plant	porcelain	bottle	
sitting	background	green	bowl	
vase	fruit	surface	close	
table	red	brown	large	
apple	ceramic ware	black	food	
small	white	orange		

moderation:	99%	safe	0%	suggestive	0%	explicit	0%	gore	0%	drug
labels:	98%	still life	89%	tableware	78%	art	74%	round out		
grow	98%	grow	93%	container	78%	pottery	77%	people		
one	98%	one	93%	cotton	82%	medicine	77%	bowl		
no person	99%	fruit	94%	two	84%	ingredients	77%	color		
food	96%	food	85%	three						
labels:	99%	no person	94%	fruit	84%	two	77%	ingredients		
color	78%		85%	three						
three			84%	two						
two			93%	cotton						
medicine			82%	medicine						
ingredients			93%	container						
people			78%	pottery						
pottery			93%	one						
bowl			77%	grow						
still life			98%	no person						
art			78%	fruit						
round out			99%	three						



#20 a close up of a vase

59%

Antoni Cumella

No title

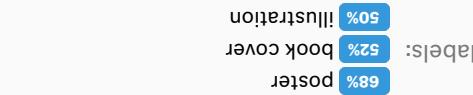
1955



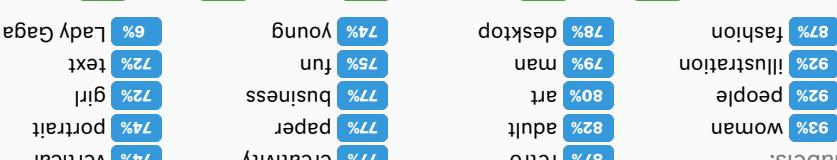
The donut is white. A red and white apple.

text: the undergroun will take over lunds konsthall february devo mean. no...

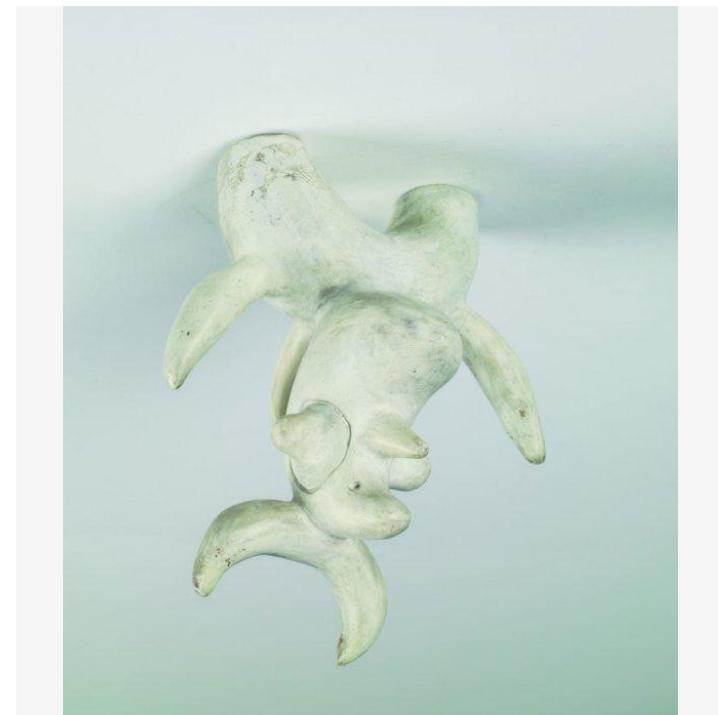
Google Cloud Vision



moderation: 0% safe 0% suggestive 99% explicit 0% gore 0% drug



Related to nature, water, flower and garden.



1946-1949

Oiseau

Joan Miró



visually similar



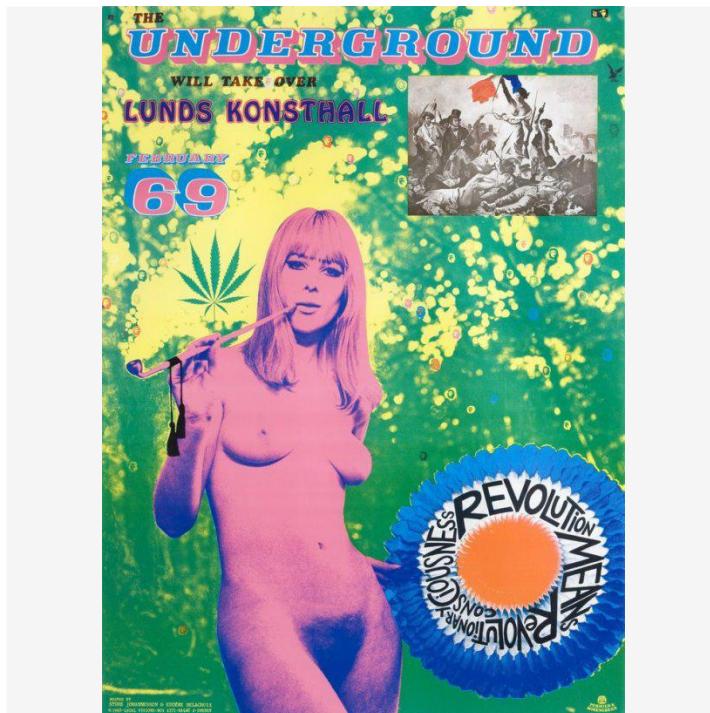
#19 a close up of a book

31%

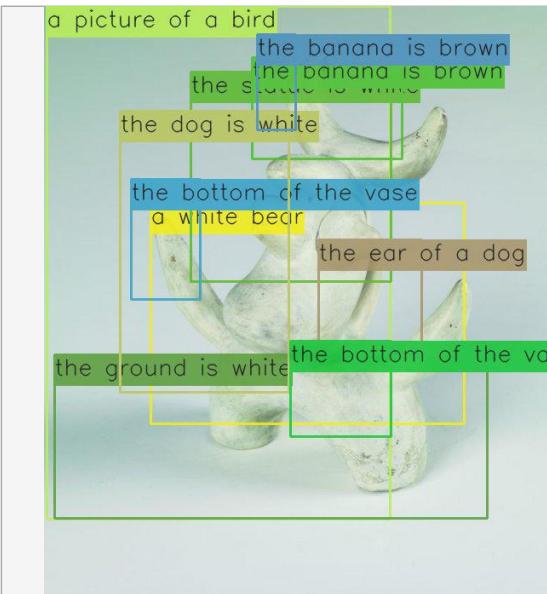
#01 no description

-

Sture Johannesson
Revolution Means Revolutionary Consciousness!
1968



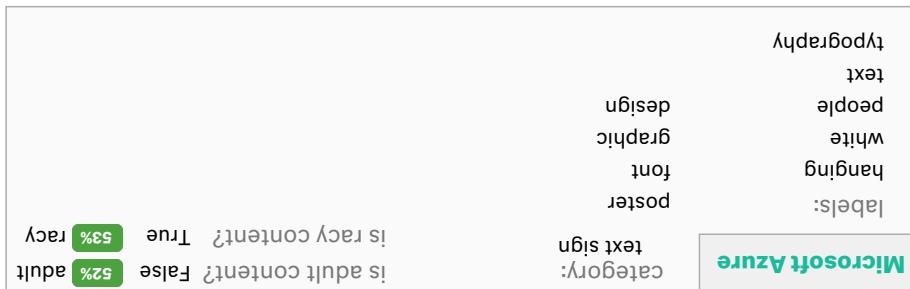
Naked body read as pink shirt with blue cake, also 6% Lady Gaga.



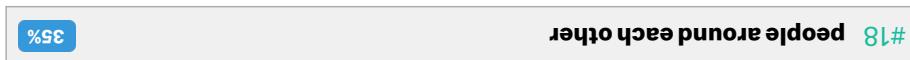
visually similar

Microsoft Azure	category: abstract nonphoto	is adult content? False	32% adult
labels:	holding statue indoor sculpture table cartoon	board animal figure white vegetable small sitting	green water apple vase blue

ClarifAI	safe for work?	0% nsfw
labels:		
99% art	93% flower	91% shape
97% sculpture	92% illustration	91% color
96% desktop	92% decoration	89% flora
96% nature	92% no person	88% abstract
	91% statue	87% beautiful
		85% figurine
		85% food
		85% garden
moderation:		
99% safe	0% suggestive	0% explicit
0% gore	0% drug	



visually similar



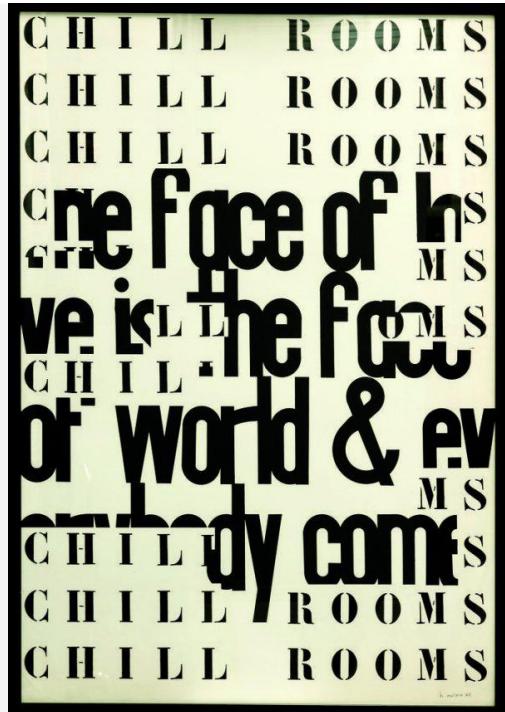
Tagged as a cage.

2015
Anni #18 Fragment 13
Leonor Antunes

Herminio Molero

Chill Rooms. Série: "Blues"

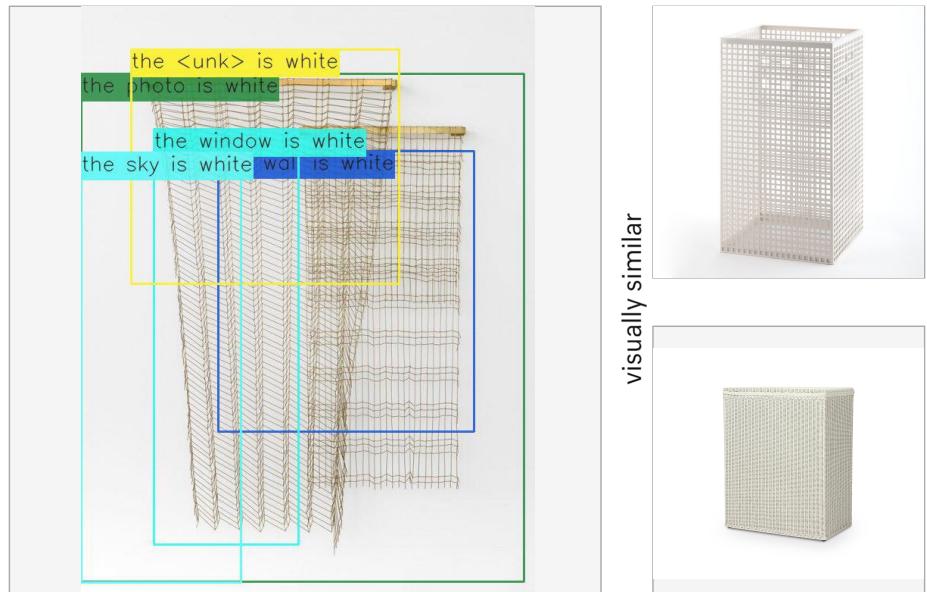
1968



Bookcover tagged as "hanging white people" and high adult content percentage.

#02 a close up of a cage

64%



ClarifAI

safe for work? 0% nsfw

labels:

94%	no person	92%	desktop	86%	disjunct	81%	cotton
94%	empty	90%	paper	86%	wood	81%	vertical
94%	design	89%	stripe	86%	rough	81%	storage
94%	weaving	87%	retro	83%	illustration	80%	business

moderation: 99% safe 0% suggestive 0% explicit 0% gore 0% drug

Microsoft Azure

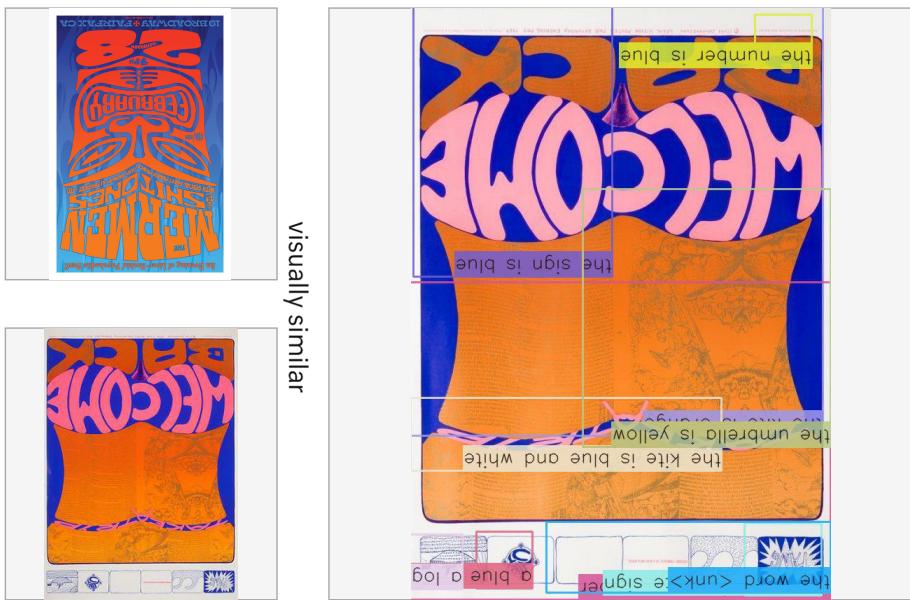
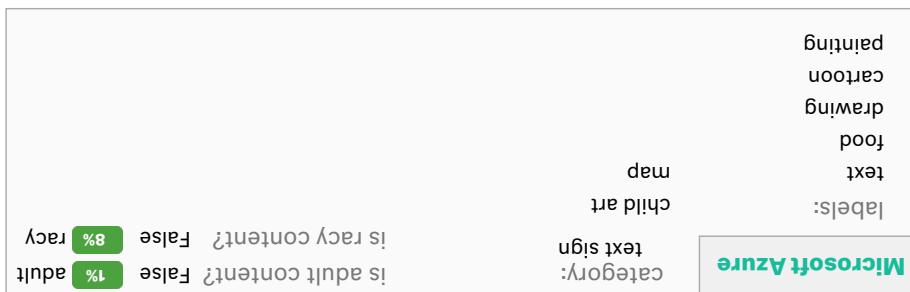
category:
others

is adult content? False 0% adult
is racy content? False 0% racy

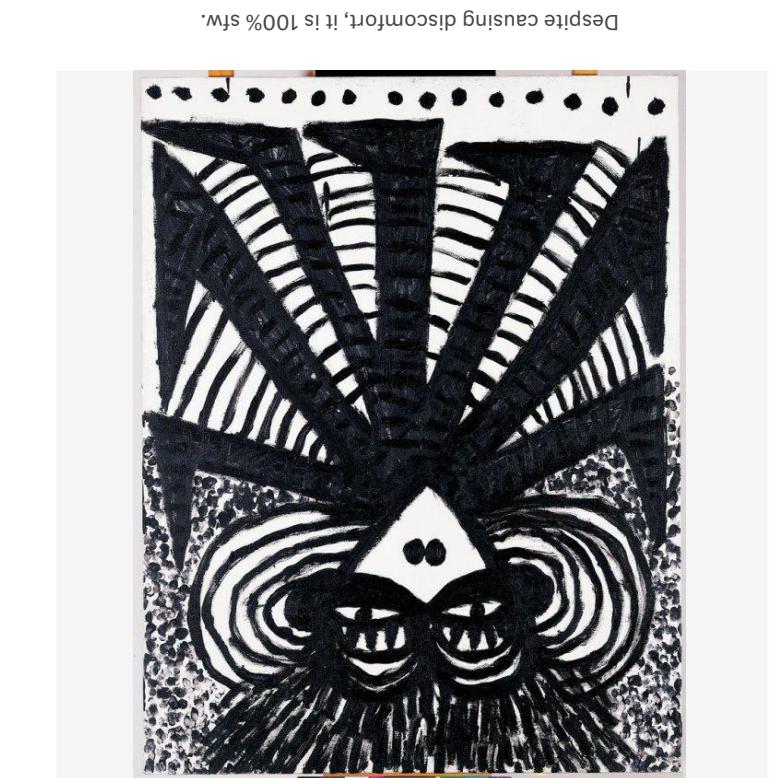
labels:

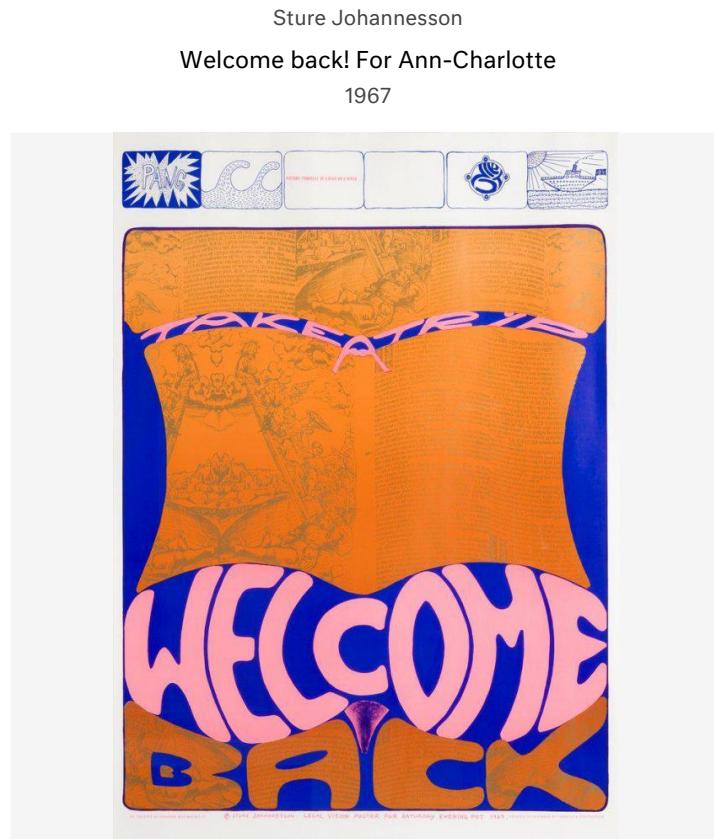
cage
text
white
fabric
pattern

textile



#17 no description

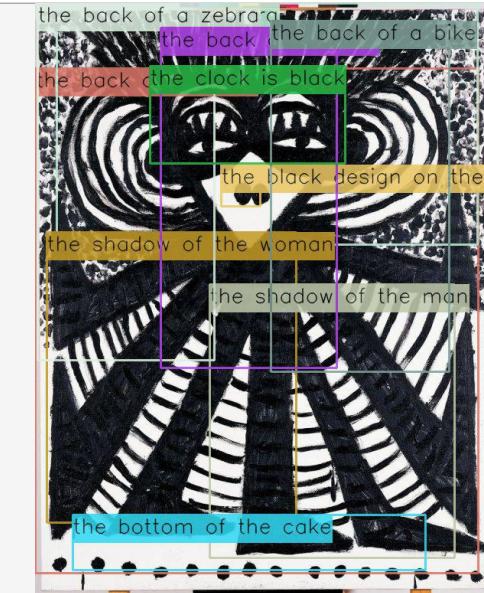




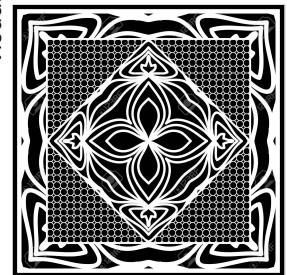
Drawing of a person's backside read as child art - Should that be a class?

#03 a close up of a logo

83%



visually similar



ClarifAI

safe for work? 0% nsfw

labels:

96% pattern	92% no person	90% retro	87% artistic
95% illustration	91% graphic	90% stripe	86% symbol
94% design	91% Halloween	87% desktop	85% wear
94% art	91% abstract	87% line	84% fashion
	91% vector	87% decoration	83% print

moderation: 99% safe 0% suggestive 0% explicit 0% gore 0% drug

Google Cloud Vision

best guess: monochrome photography

violence:
very unlikely

medical:
very unlikely

adult:
very unlikely

spoof:
very unlikely

racy:
very unlikely

labels: 68% black-and-white

62% visual arts

54% monochrome

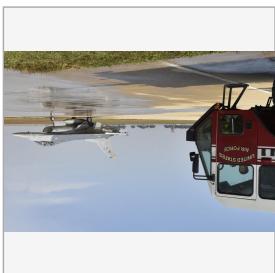
66% illustration

56% printmaking

65% art

56% pattern

text: //////////////•.,,.....



visually similar



#16 a airplane that is flying in the sky

52%

Read as 100% child art and tagged as man.



Zush
Gorphino
1973

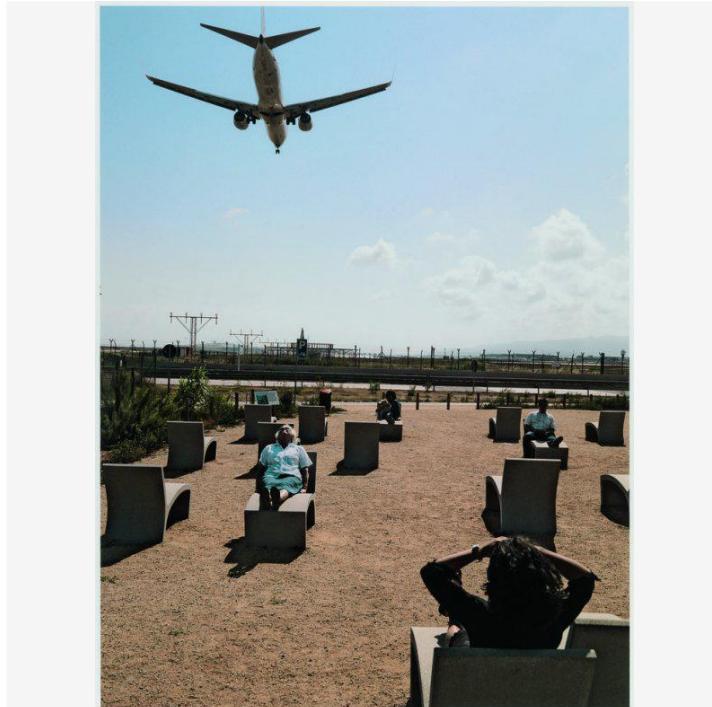
#04 graffiti on a wall

47%

David Goldblatt

Watching Planes Come in, el Mirador del Prat, El Prat del Llobregat. Série:
"Connexions globals"

2008

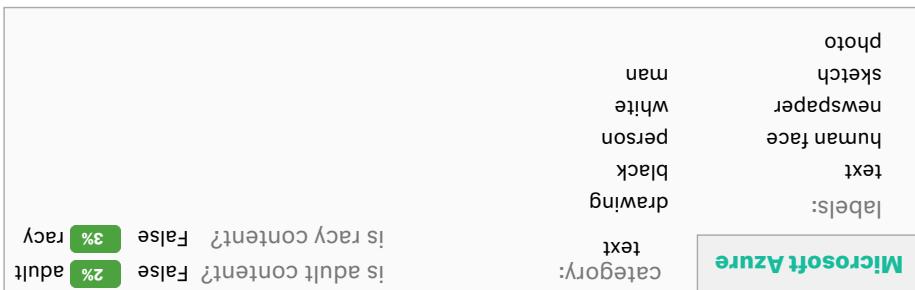


Read as a war, but 100% safe. Plane+people read as shooting range.



Microsoft Azure	category: abstract rect	is adult content? False 1% adult
labels:	sign	painting
child art	man	handwriting
text	art	map
cartoon	cat	picture frame
graffiti	illustration	
drawing	abstract	

Google Cloud Vision	best guess: cat				
violence:	medical:	adult:	spoof:	racy:	
very unlikely	very unlikely	very unlikely	unlikely	very unlikely	
labels:	79% line	70% cat	62% whiskers		
	77% illustration	66% visual arts	59% paper		
	70% art	66% rectangle	53% paper product		
text: no texts found					



visually similar

#15 Nancy Reagan, Betty Ford are posing for a picture

Text: republicans do believe in a woman's right to control her own body! nos... .

Labels:	81% font	74% history	71% organism	78% line
Text	94%	74%	54%	paper
Violence:	medieval	adult:	spoon:	racy:
very unlikely	unlikely	possible	unlikely	racily

best guess: human behavior

Read as monitor, computer, laptop and holding.



1972
Kaeenia II
Zush

Anonymous work

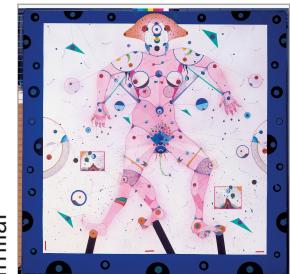
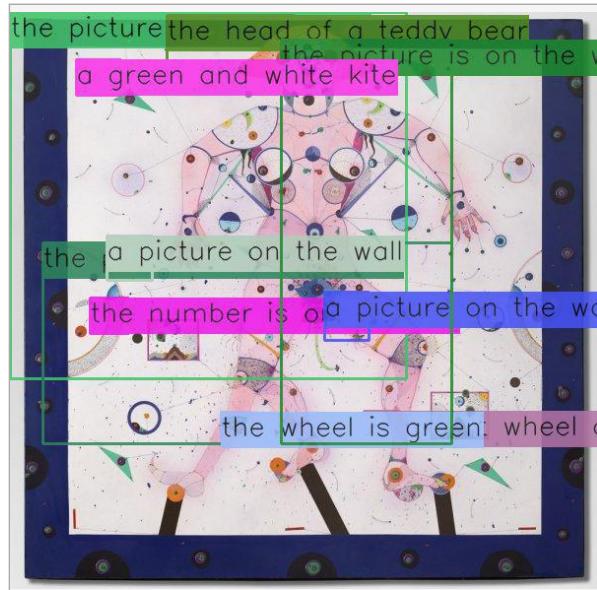
Republicans Do Believe in a Woman's Right to Control Her Own Body!

1992



Political ad as non-adult and non-racy.

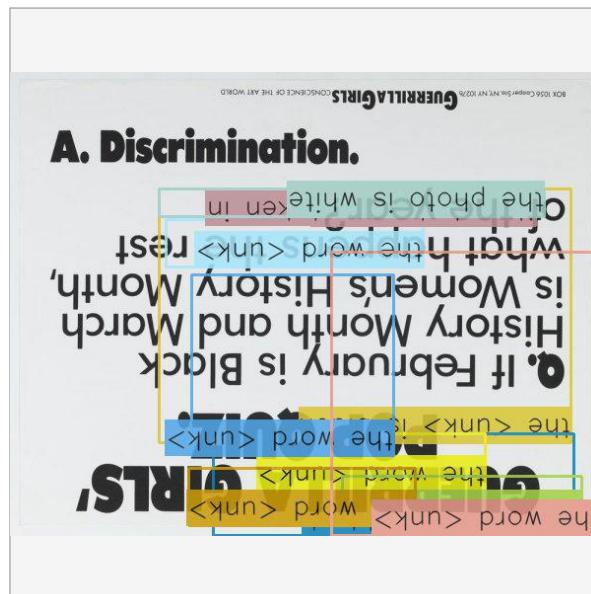
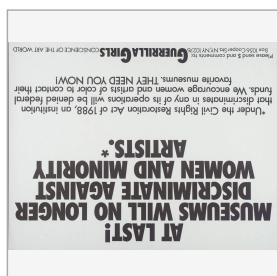
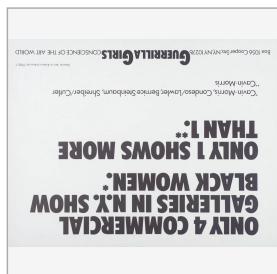
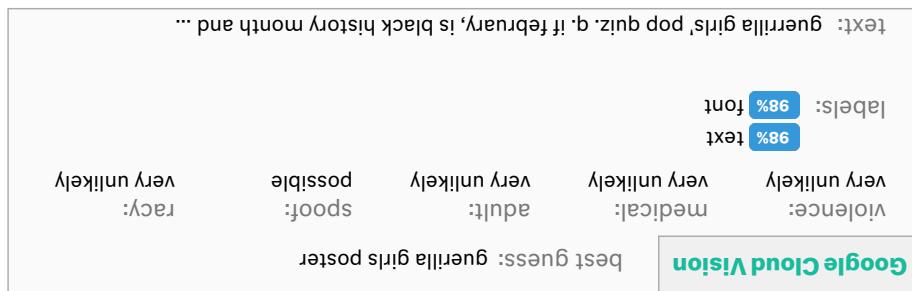
#05 no description



visually similar

Microsoft Azure	category: others	is adult content? False 2% adult
labels:	thing	clock
text	photo	map
computer	monitor	different
child art	drawing	laptop
indoor	table	colored
cartoon	art	white
		open
		small
		sitting
		desk
		various
		holding

ClarifAI	safe for work? 0% nsfw
labels:	93% graphic
97% illustration	93% design
96% desktop	92% art
94% vector	91% old
94% picture frame	91% retro
90% sketch	87% child
89% card	86% image
88% decoration	85% celebration
88% fun	84% toy
88% vintage	83% cute
moderation: 99% safe	0% suggestive
0% explicit	0% gore
0% drug	



Anonymous work

Pop Quiz

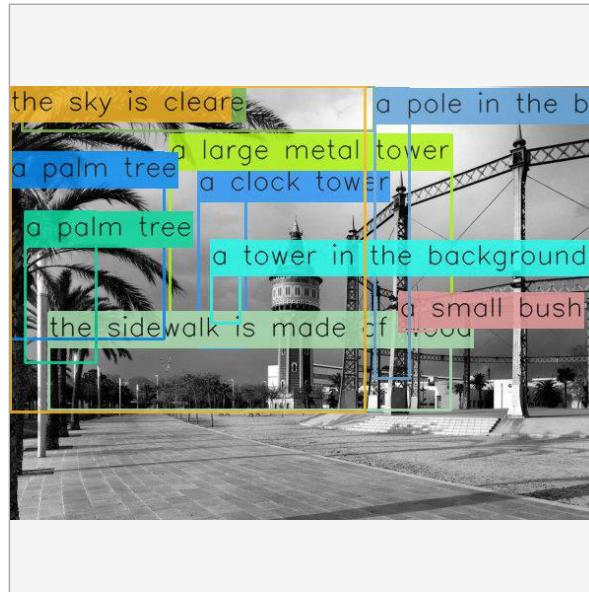
1990



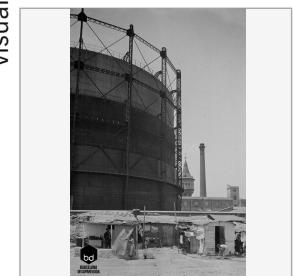
Read as possibly spoof.

#06 a large white building surrounded by palm trees

92%



visually similar



ClarifAI

safe for work? 3% nsfw

labels:

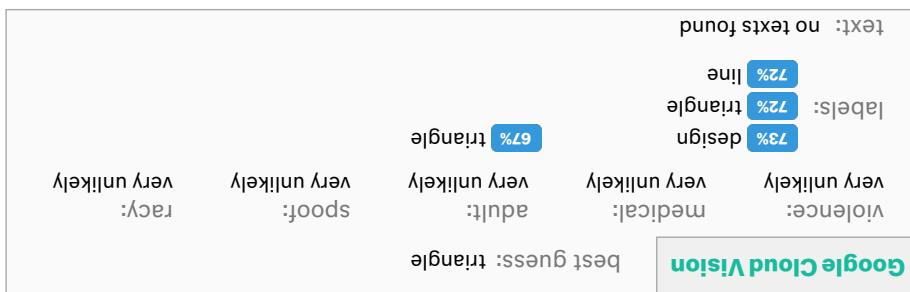
98%	no person	95%	outdoors	88%	water	86%	urban
98%	architecture	94%	city	88%	tourism	85%	tree
98%	travel	94%	sky	86%	road	84%	people
96%	street	94%	building	86%	light	83%	tower

moderation: 99% safe 0% suggestive 0% explicit 0% gore 0% drug

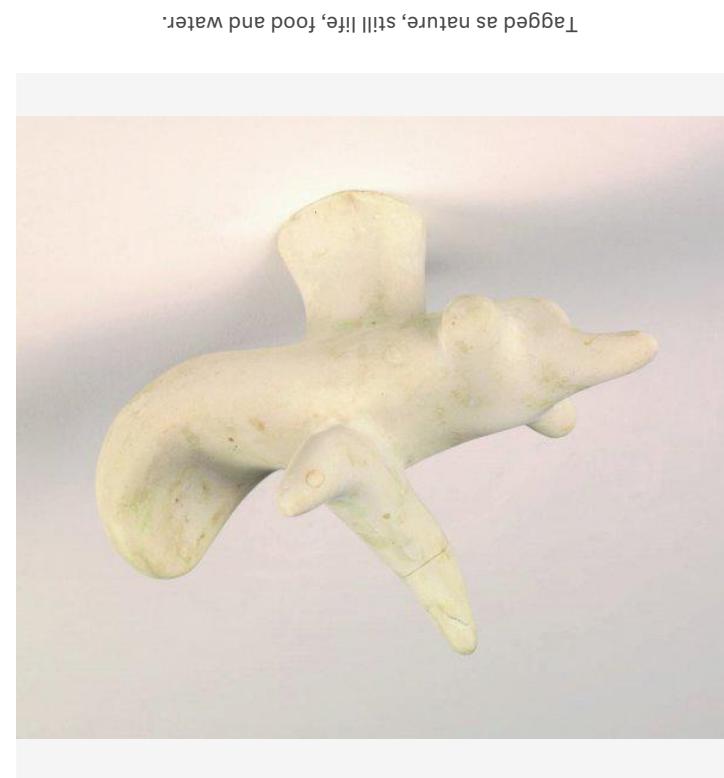
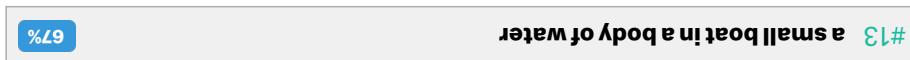
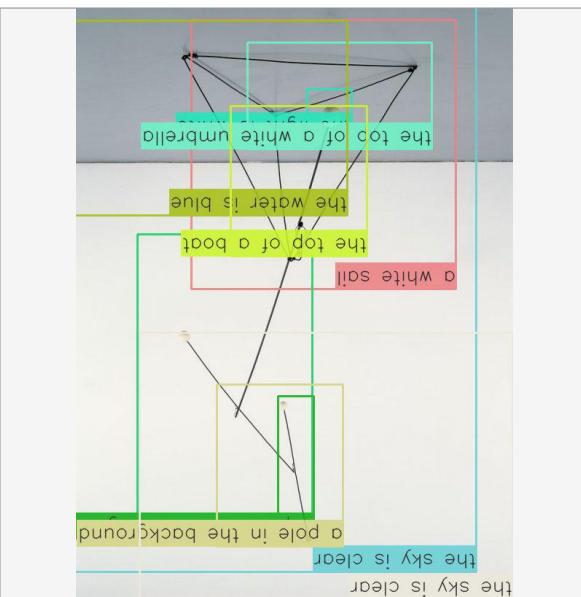
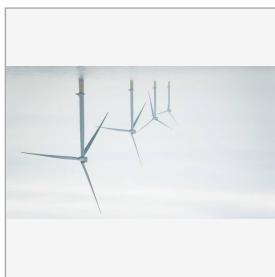
Amazon Rekognition

labels:

93%	building	76%	person
84%	architecture	76%	human
77%	city	74%	tree
77%	urban	74%	plant
77%	town	68%	construction
		66%	road
		55%	downtown



visually similar



Tagged as nature, still life, food and water.

#07 no description

-

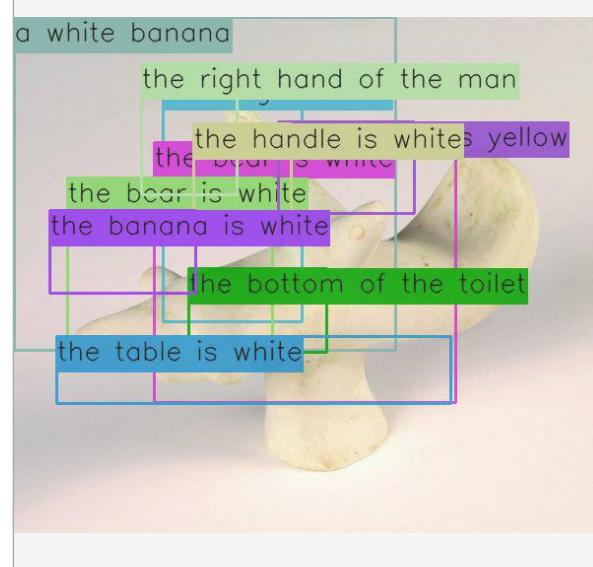
Alexander Calder

No title

1931



Visually similar to windmill.



visually similar



ClarifAI

safe for work? 0% nsfw

labels:

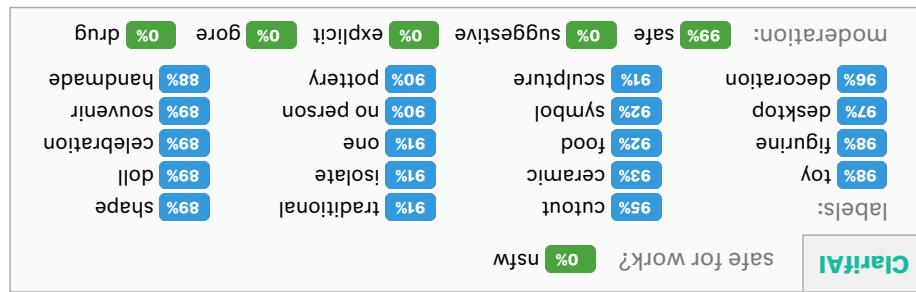
99%	no person	92%	isolated	83%	disjunct	79%	three
97%	one	90%	food	83%	still life	78%	shape
96%	nature	89%	simplicity	80%	health	78%	desktop
93%	two	88%	cutout	79%	water	77%	winter
		85%	sculpture	79%	wildlife	77%	fungus

moderation: 99% safe 0% suggestive 0% explicit 0% gore 0% drug

Amazon Rekognition

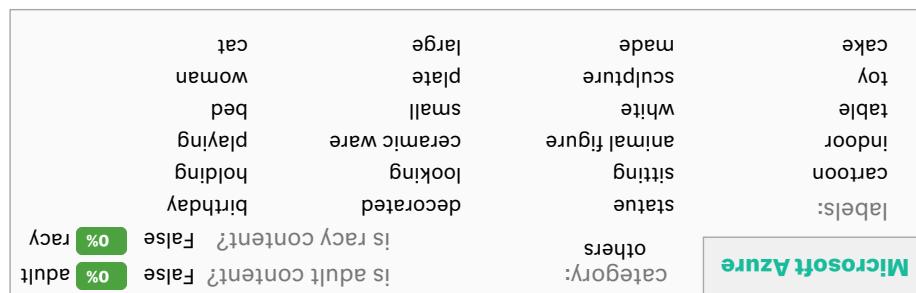
labels:

99%	figurine
60%	art
60%	sculpture
55%	torso



1% suggestive and 89% Buddha.

1949
Femme
Joan Miró



visually similar



#12 a cake made to look like a face

#08 a large white cake sitting on top of a table

42%

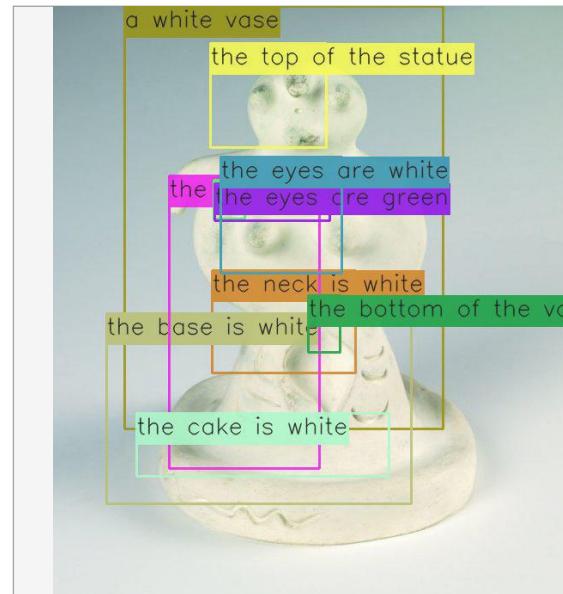
Joan Miró

Tête

1946-1949



Tagged as plate, large, birthday, holding, playing, bed and woman.



ClarifAI

safe for work? 0% nsfw

labels:

99% sculpture	98% art	92% cutout	89% Buddha
98% figurine	97% figure	92% people	88% religion
98% no person	97% one	92% still life	88% pottery
98% statue	96% toy	91% chess	87% conceptual

moderation: 99% safe 0% suggestive 0% explicit 0% gore 0% drug

Google Cloud Vision

best guess: figurine

violence:
very unlikely

medical:
very unlikely

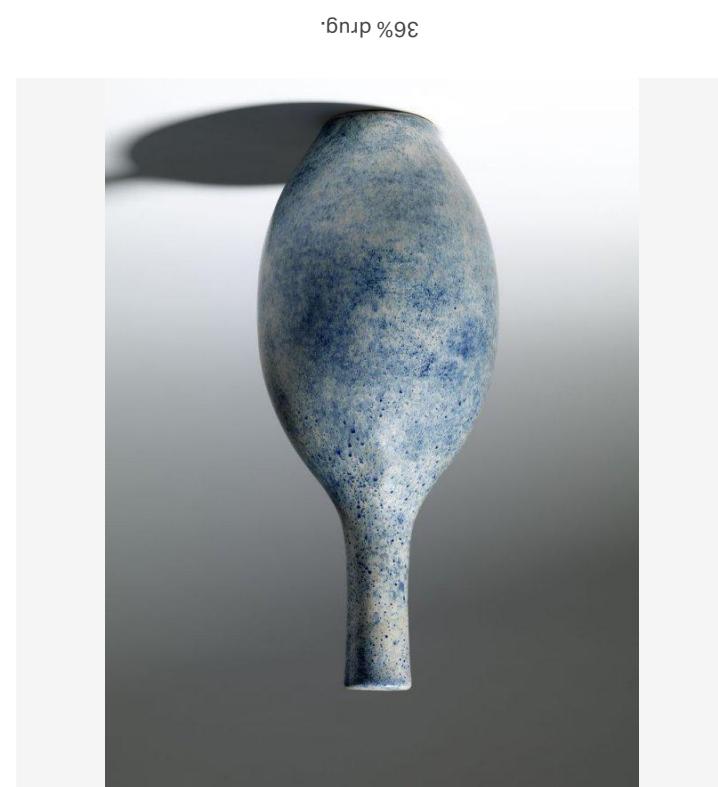
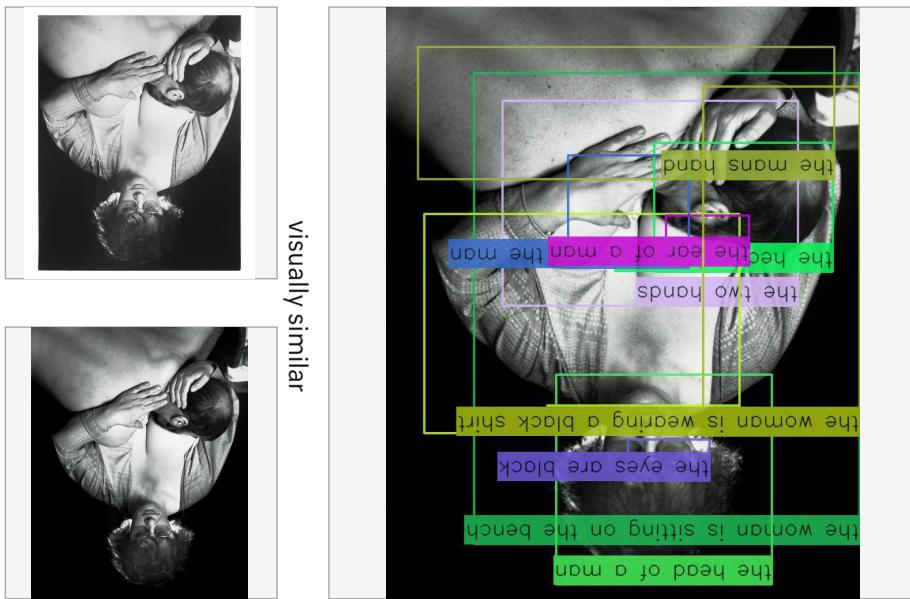
adult:
unlikely

spoof:
very unlikely

racy:
possible

96% figurine	72% toy	50% art
78% porcelain	72% sculpture	
76% ceramic	54% statue	

text: no texts found



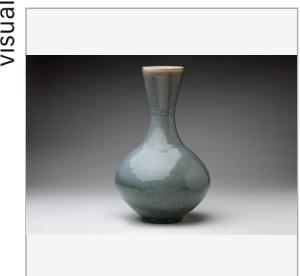
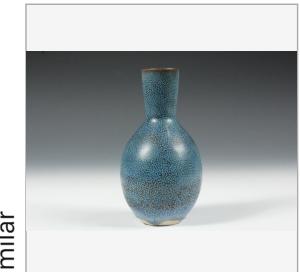
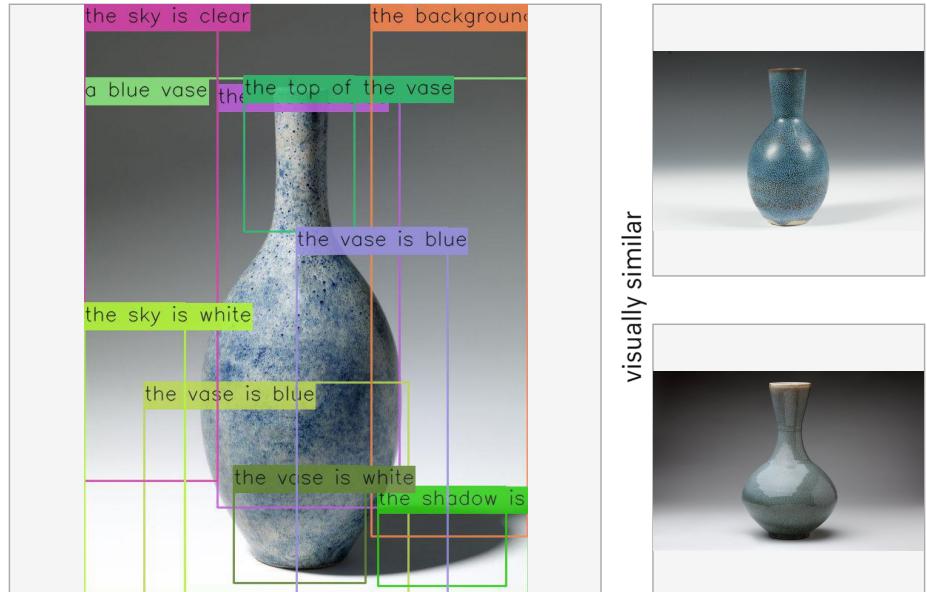
Jo Spence, Terry Dennett
Remodelling Photo History
1982



Woman head read as man's head and man, in a tipically child position, identified as a baby.

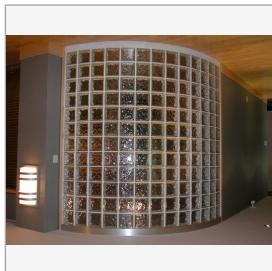
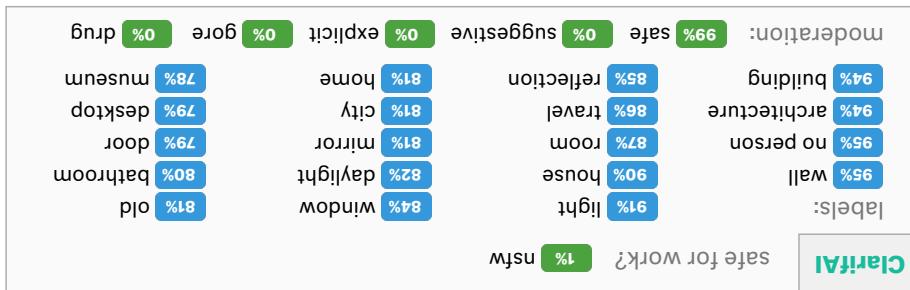
#09 a white vase on a table

67%

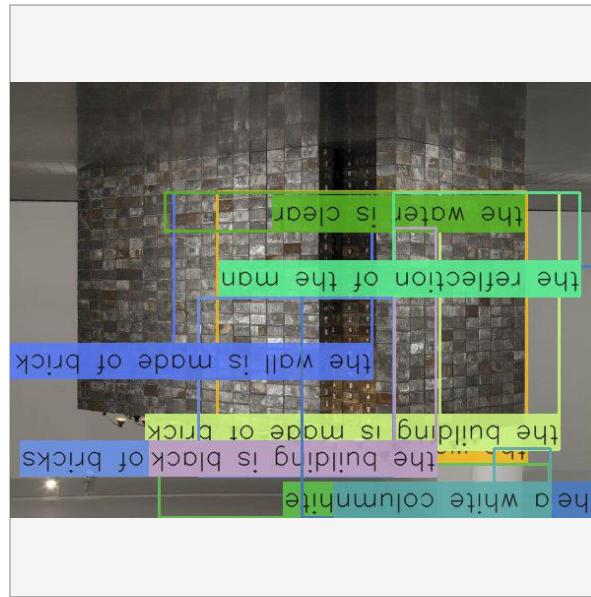


ClarifAI	safe for work?	0% nsfw
labels:		
99% no person	95% tableware	87% cutout
97% one	94% still life	79% food
95% pottery	93% vase	79% grow
95% container	90% kitchenware	76% art
	88% simplicity	84% desktop
		76% medicine
		76% reflection
		76% vintage
moderation:		
63% safe	0% suggestive	0% explicit
	0% gore	36% drug

Microsoft Azure	category: object sculpture	is adult content? False	3% adult
labels:	black	plant	flower
bottle	utensil	single	ledge
vase	white	small	background
indoor	sitting	ceramic	surface
thing	vessel	porcelain	blue
ceramic ware	table	stoneware	holding



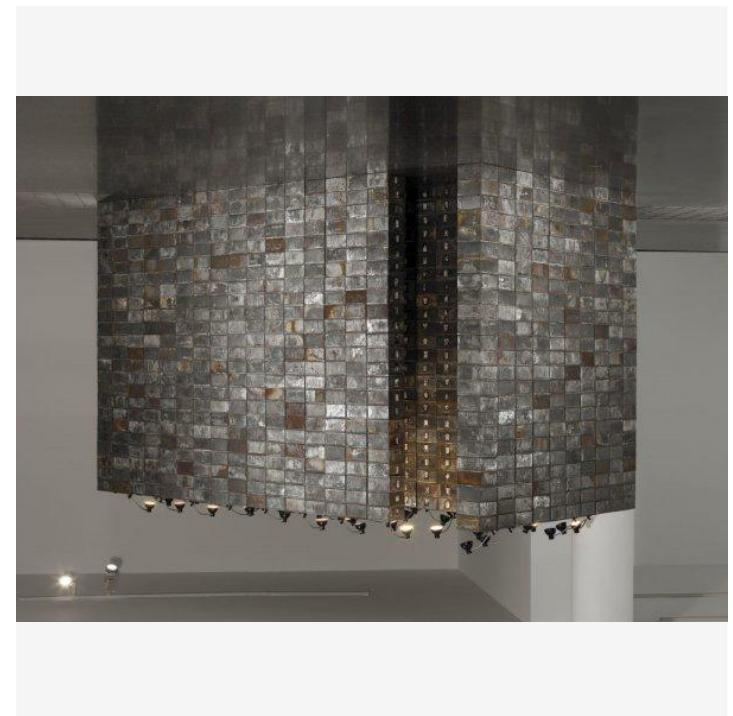
visually similar



#10 a close up of a brick building

88%

Tagged as 100% safe. A reflection of the man? Who is the man? And 79% bird.



1991
Christian Boltanski
Reserve de Suisse morts