

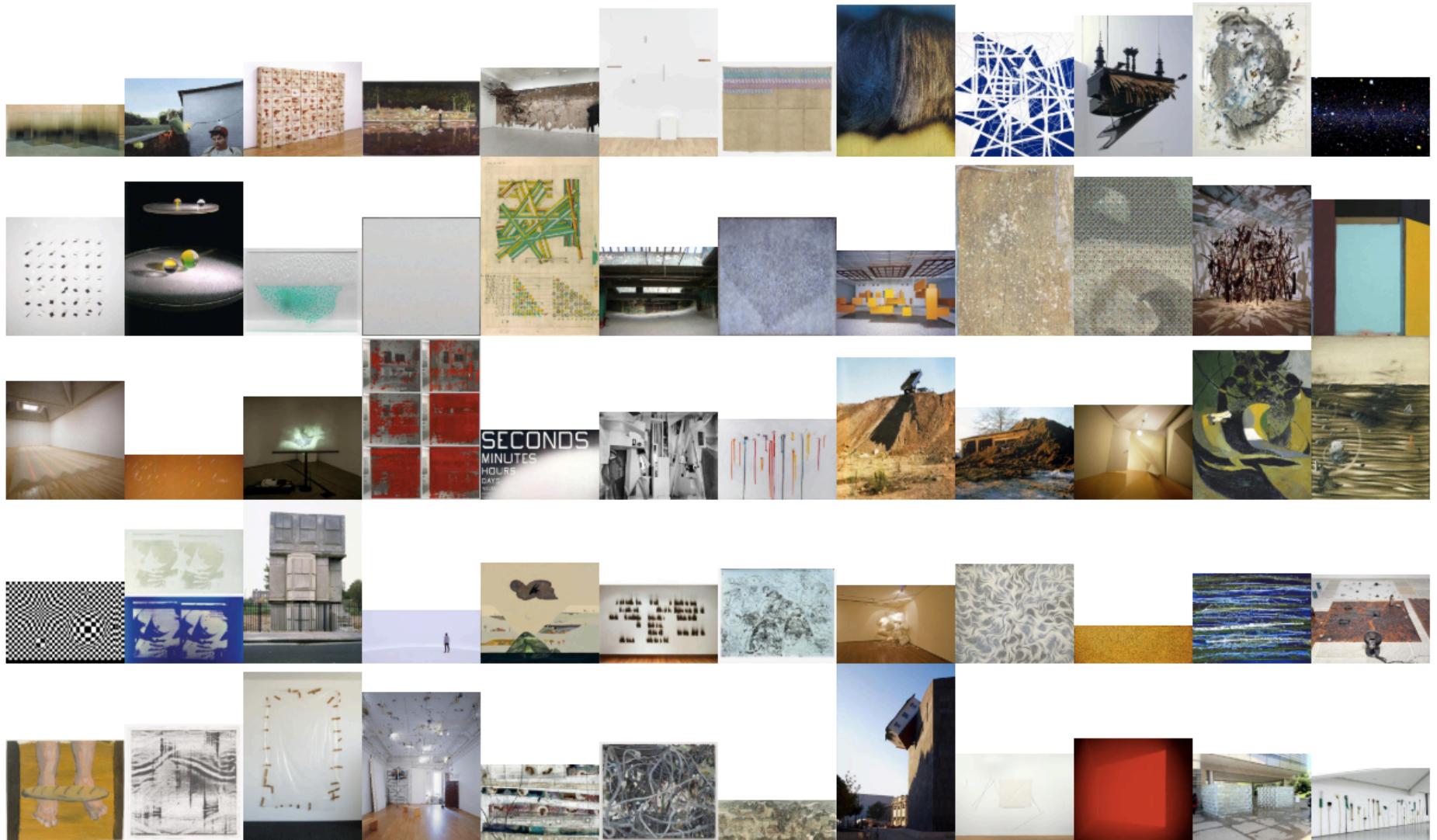
The rendering of statistical information into graphical form gives it a simplicity and legibility that hides every aspect of the original interpretive framework on which the statistical data were constructed. The graphical force conceals what the statistician knows very well—that no “data” pre-exist their parameterization.

Drucker, 2014

Seeking new ways of representing

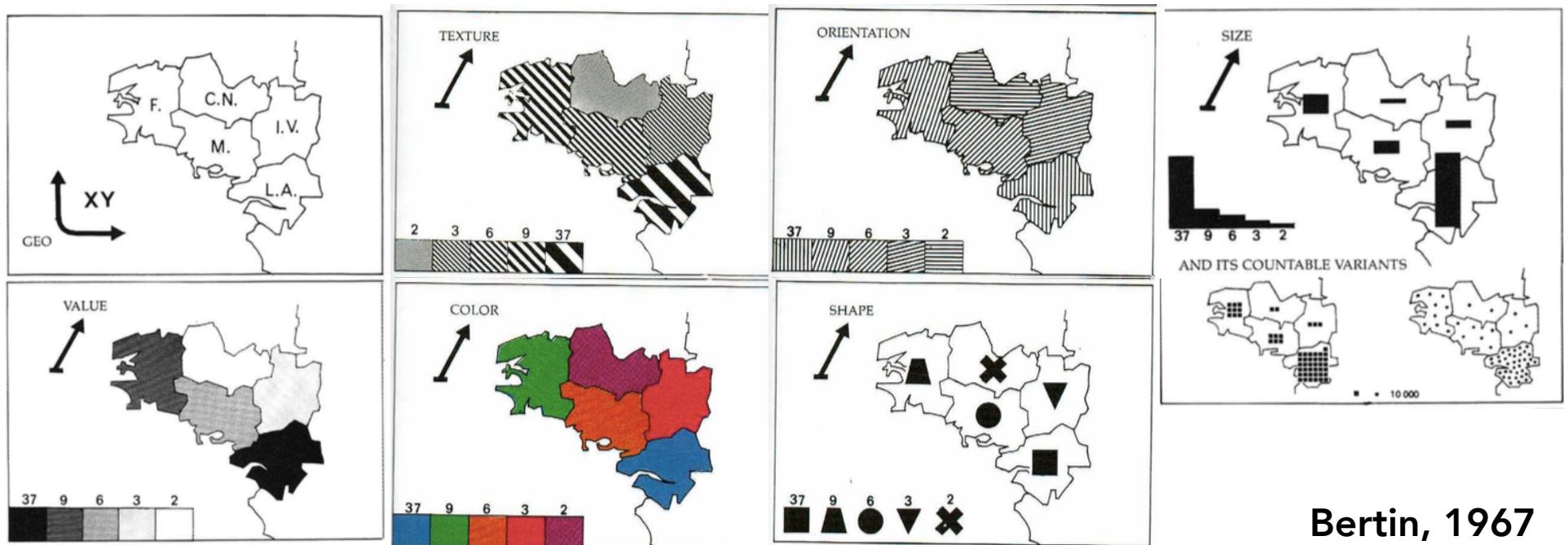
uncertainty

in Data Visualization: a Review of Fine Art

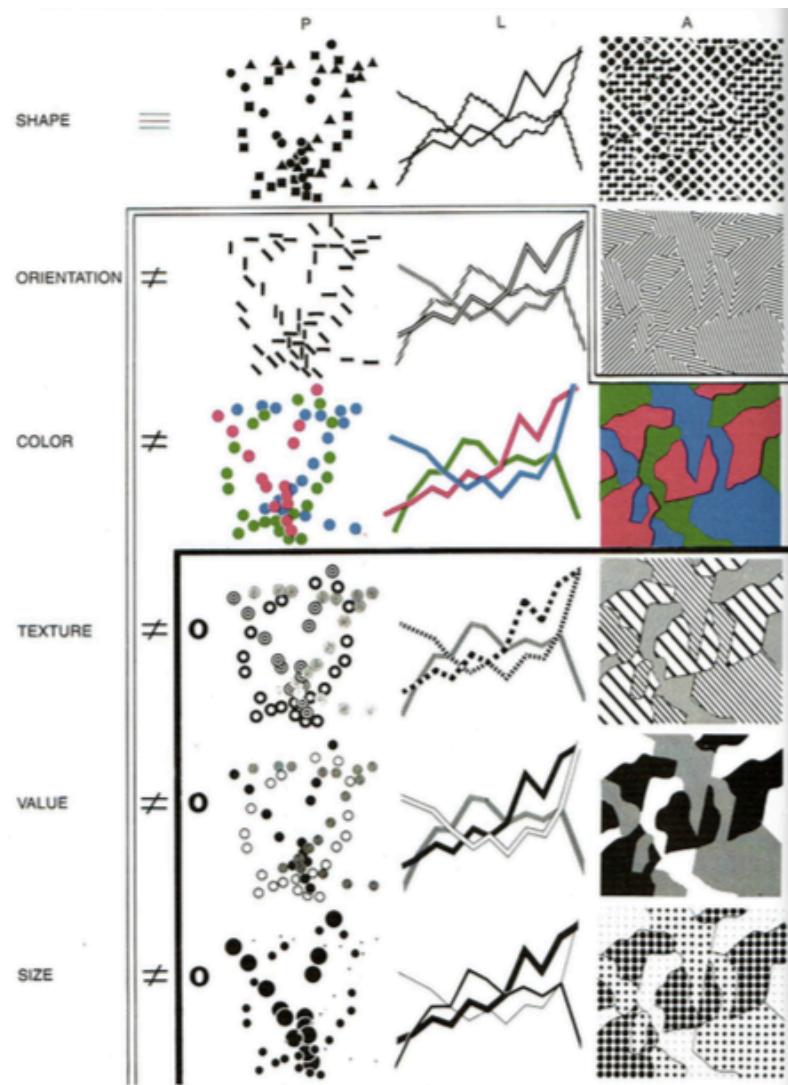


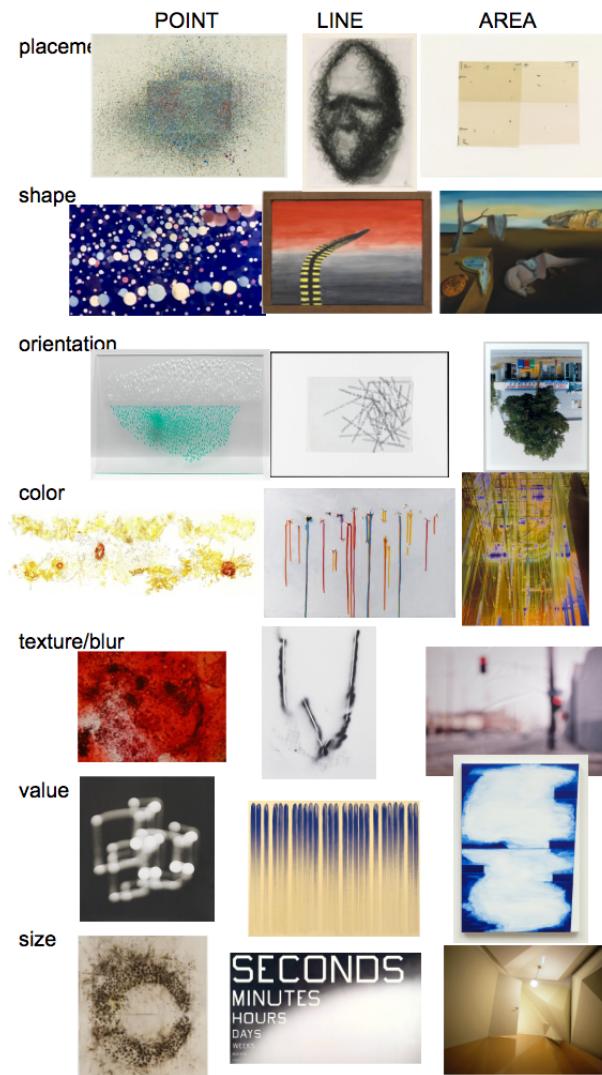
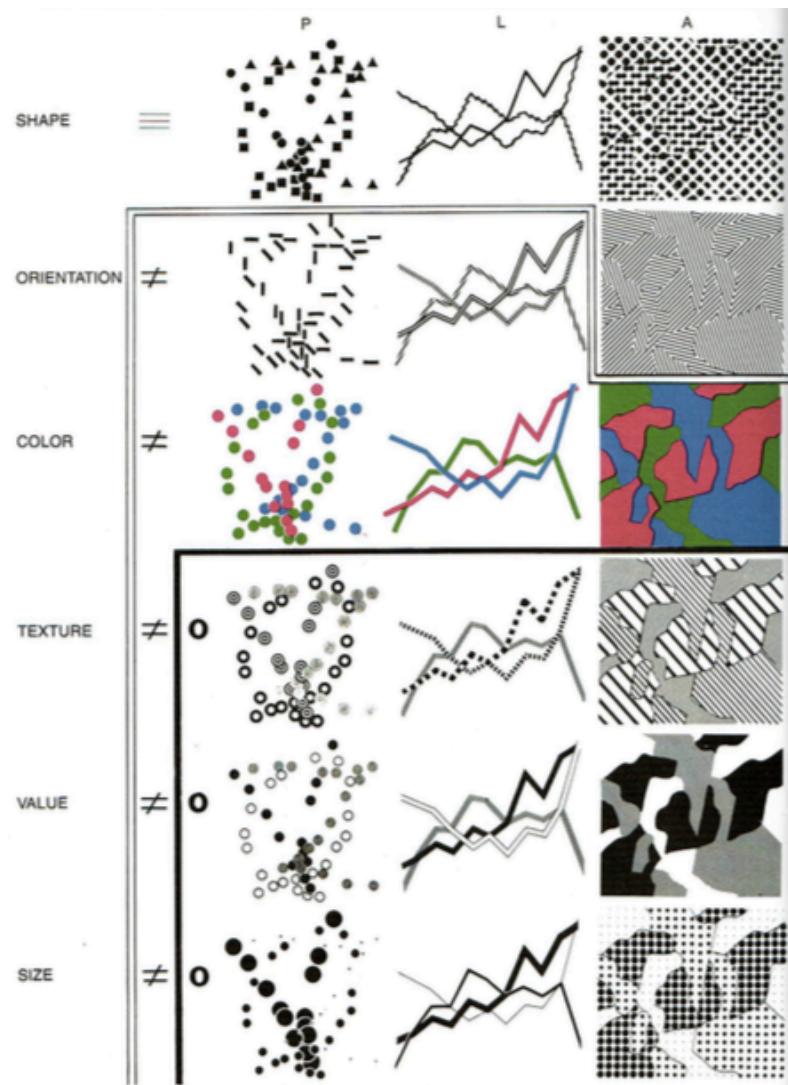
<u>medium</u>	<u>n</u>
painting	142
photography	68
drawing	55
sculpture	53
print	48
installation	35
video, film	3

Uncertainty



Bertin, 1967





Full_aaron and clare new attempt at classification FINAL

Secure | https://docs.google.com/spreadsheets/d/1wGr5kGW6wA83NCyWwVd4EbRiVswY5W7DQgF5oGLVkW0/edit#gid=0

Aaron

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

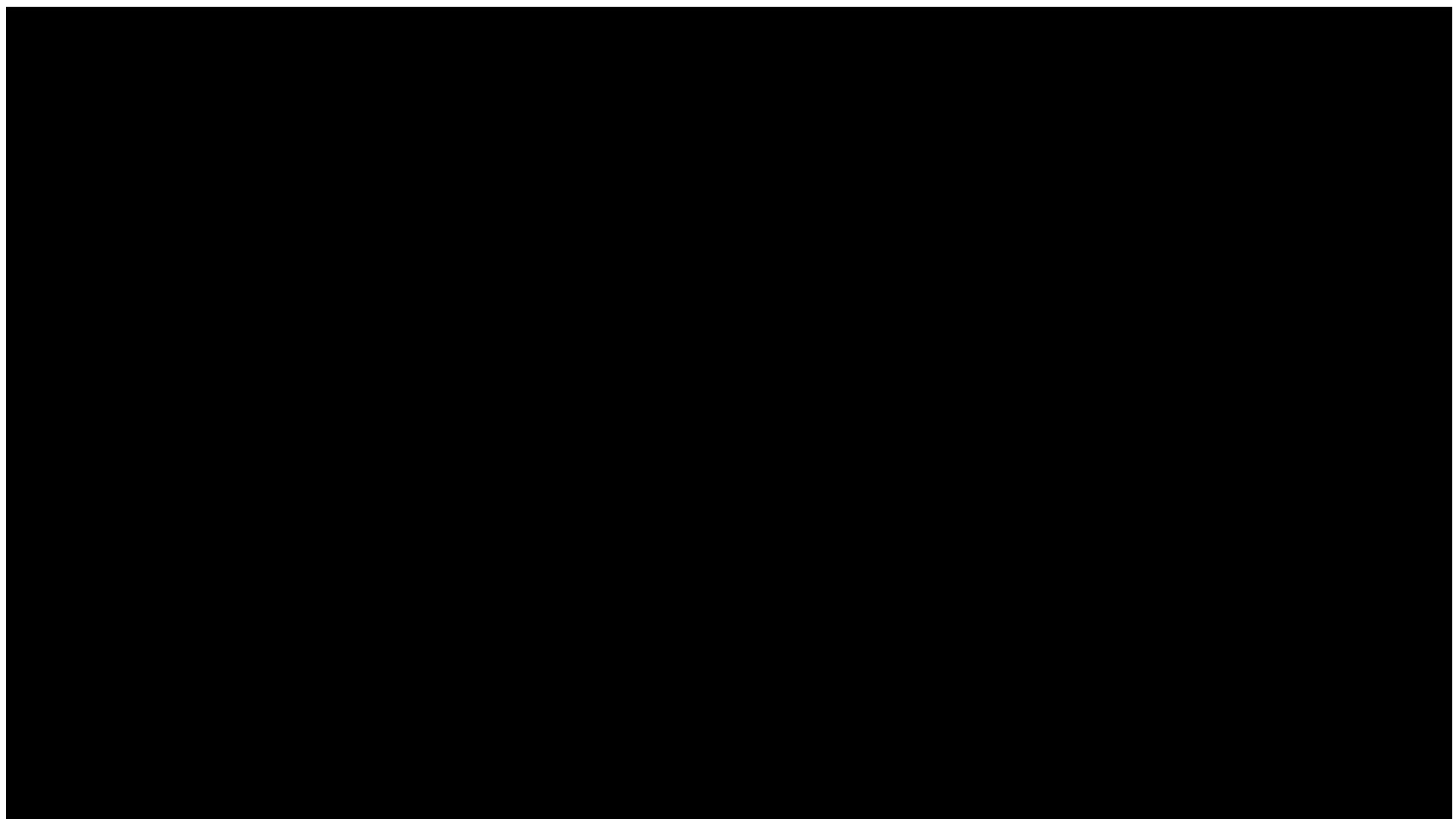
SHARE A

fx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Has Text	Medium	Size	Date	Representation	Kinetic	point	line	area	map	spatial dimension	placement	size	value	texture/blur	color	orientation	
2	painting, oil on canvas	106 x 94 cm	1913	TRUE					TRUE			TRUE	TRUE	and			TRUE	
3	sculpture, fabric, glass & metal	24 x 420 x 335 cm	1967	TRUE					TRUE		TRUE	TRUE	and	and	and		and	
4	painting, oil on canvas	156 x 184 cm	1958	TRUE					TRUE				and	TRUE	TRUE	TRUE	TRUE	
5	painting, oil, household paint on hardboard	213 x 152 cm	1957						TRUE		and	TRUE	and	and	TRUE		TRUE	
6	painting, mixed media on canvas	73 x 60 cm	1956						TRUE				and	and	TRUE		and	
7	painting, marker pen, acrylic on canvas	274 x 427 x 6 cm	1998					TRUE					TRUE	and	and	TRUE		
8	painting, oil on canvas	236 x 149 cm	1787	TRUE					TRUE				TRUE	TRUE	and		TRUE	
9	photo, digital print w/ acrylic on canvas	346 x 416 cm	1997	TRUE					TRUE		and		and	and	TRUE			
10	print, lithograph on paper	26 x 21 cm	1953						TRUE				and	and	and		TRUE	
11	installation, sculpture, coated glass	188 x 549 x 244 cm	1971						TRUE		TRUE	TRUE	and	TRUE	and			
12	photo, gelatin silver print on paper	24 x 24 cm	1936	TRUE					TRUE		and		and	and	and		TRUE	
13	print, lithograph on paper	43 x 29 cm	1956					TRUE	and				and	and	TRUE		and	
14	photo, gelatin silver print on paper	24 x 61 cm	1983	TRUE					TRUE				TRUE	TRUE			and	
15	photo, chromogenic print on paper	51 x 76 cm	2000	TRUE					TRUE		and	and	TRUE	TRUE	and	and		
16	photo, paper mounted onto aluminum	150 x 242 cm	1999	TRUE					TRUE		and	TRUE	and	TRUE	TRUE	TRUE		
17	painting, oil on hardboard	152 x 123 cm	1959					and	TRUE		and	TRUE	and	TRUE	and		and	
18	drawing, ink on paper	25 x 18 cm	1969					TRUE					and	TRUE	and		TRUE	
19	drawing, ink on paper	30 x 21 cm	1980	TRUE					TRUE				TRUE	and				
20	painting, oil on canvas	183 x 183 cm	1962	TRUE				and	TRUE				TRUE	TRUE	and	TRUE	and	
21	painting, acrylic on canvas	91 x 137 cm	1986	TRUE					TRUE				TRUE	TRUE	and		and	
22	painting, oil on canvas	62 x 75 x 2 cm	1910	SEMI				TRUE	TRUE			and	TRUE	TRUE	and		and	
23	photo, digital print on paper	150 x 190 cm	2010	TRUE					TRUE		and	TRUE	and	TRUE	TRUE	and		
24	painting, oil on canvas	191 x 229 x 5 cm	1999	SEMI					TRUE	TRUE			and	and	TRUE		TRUE	
25	installation, cardboard boxes, gauze, polyvinyl	203 x 323 x 20 cm	1970						TRUE		TRUE	TRUE	and	TRUE	TRUE	TRUE		
26	photo	243 x 196 cm	2000	TRUE					TRUE		and	TRUE	TRUE	TRUE	TRUE			
27	print, lithograph on paper	32 x 42 cm	1975	TRUE					TRUE		and		TRUE	TRUE	TRUE			
28	drawing, charcoal on paper	102 x 93 cm	1987	SEMI				TRUE	TRUE				TRUE	TRUE	TRUE		TRUE	
29	drawing, chalk on blackboard	14 boards each 244 x 244 cm	1997	SEMI					TRUE	and			TRUE	TRUE	TRUE		and	
30	paint, oil on canvas	231 x 361 x 5 cm	1998	TRUE					TRUE				TRUE	TRUE	TRUE	TRUE	and	
31	installation, wood and mixed media	457 x 1748 x 160 cm	2009						TRUE		TRUE	TRUE	and	and		TRUE		
32	sculpture, wood, glass & paint on canvas	40 x 130 x 90 cm	1913						TRUE		TRUE	TRUE						
33	painting, oil on canvas	110 x 130 x 2 cm	2004	TRUE					TRUE				TRUE	and	TRUE	and	and	
34	painting, oil on canvas	125 x 108 cm	1921	TRUE					TRUE				TRUE					
35																		

Sheet1

Explore



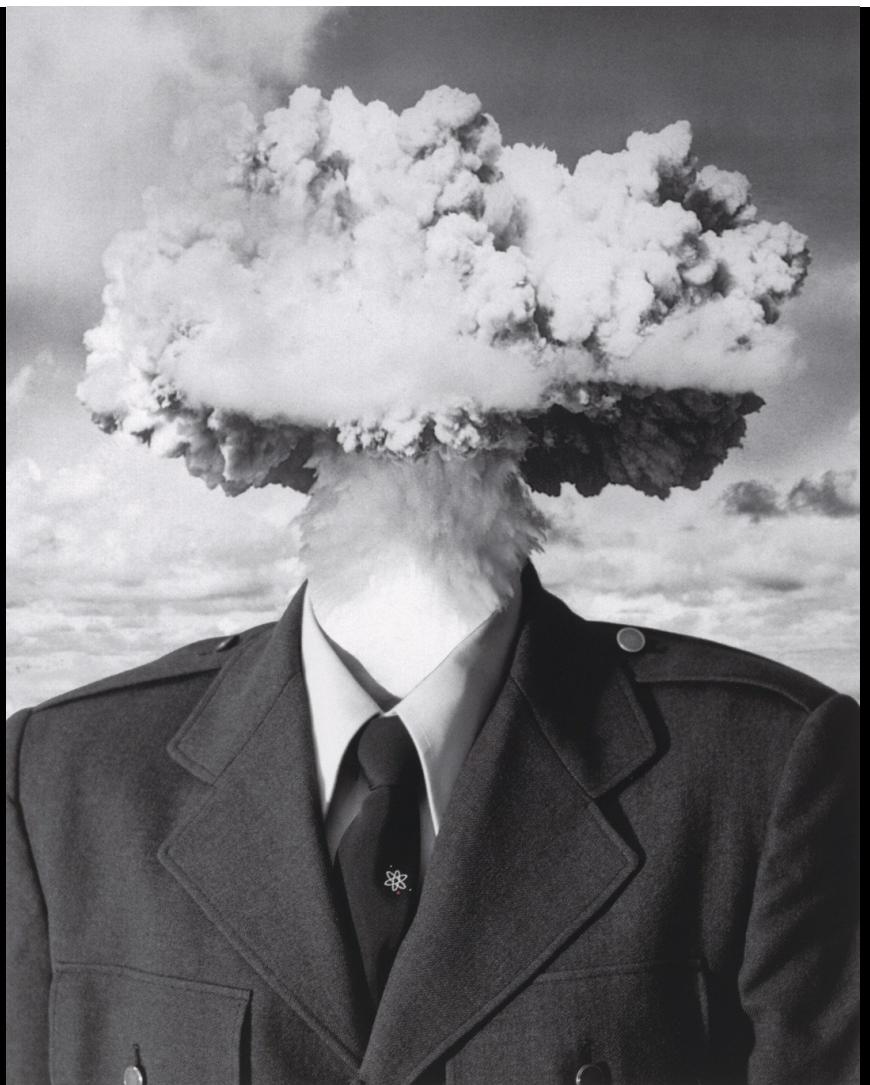
placement

given location on the planar dimensions









shape

a mark with a constant size can nonetheless have an infinite number of different shapes



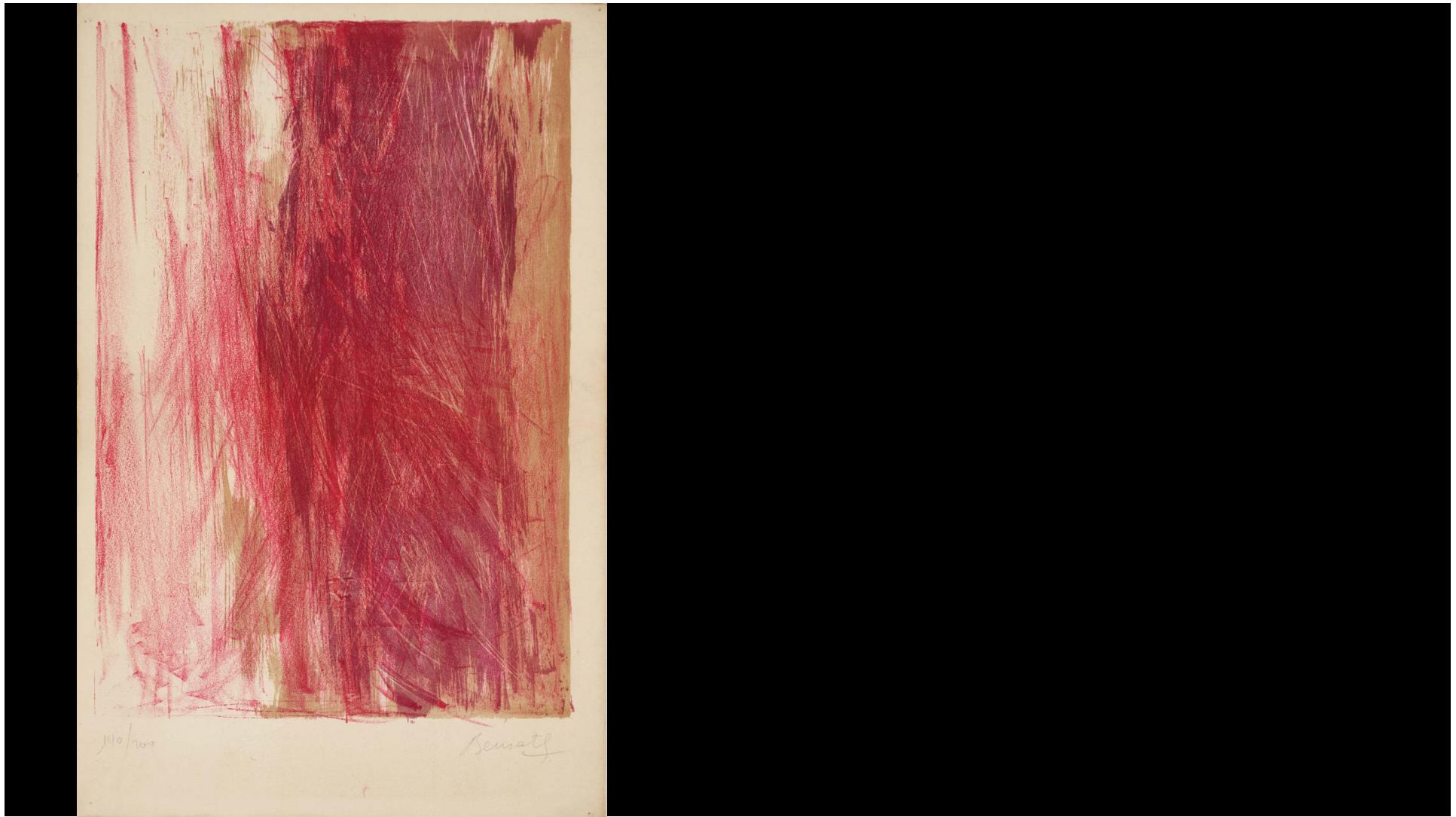




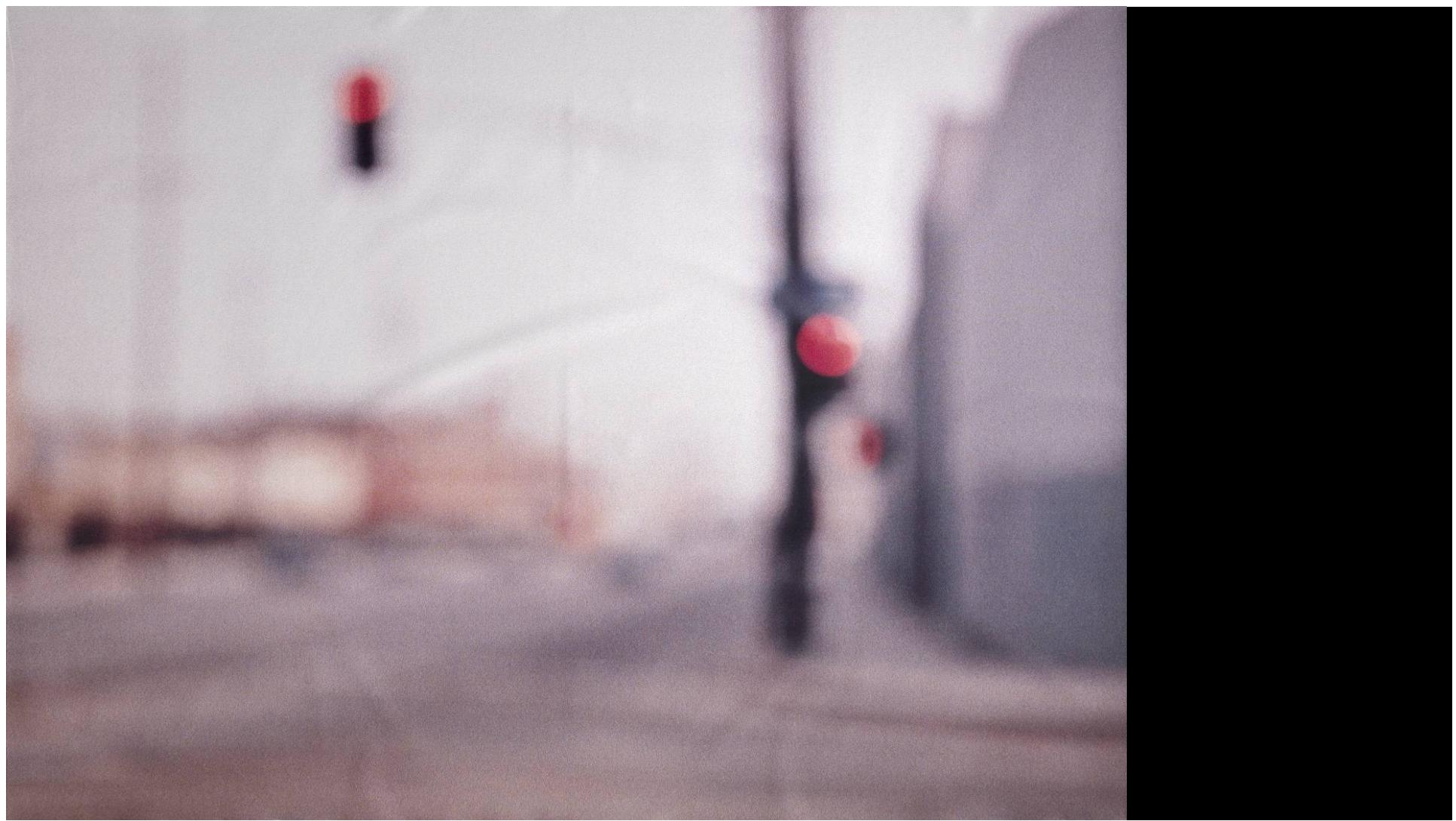


texture

variation in the fineness or coarseness of an area having a given value; includes blur





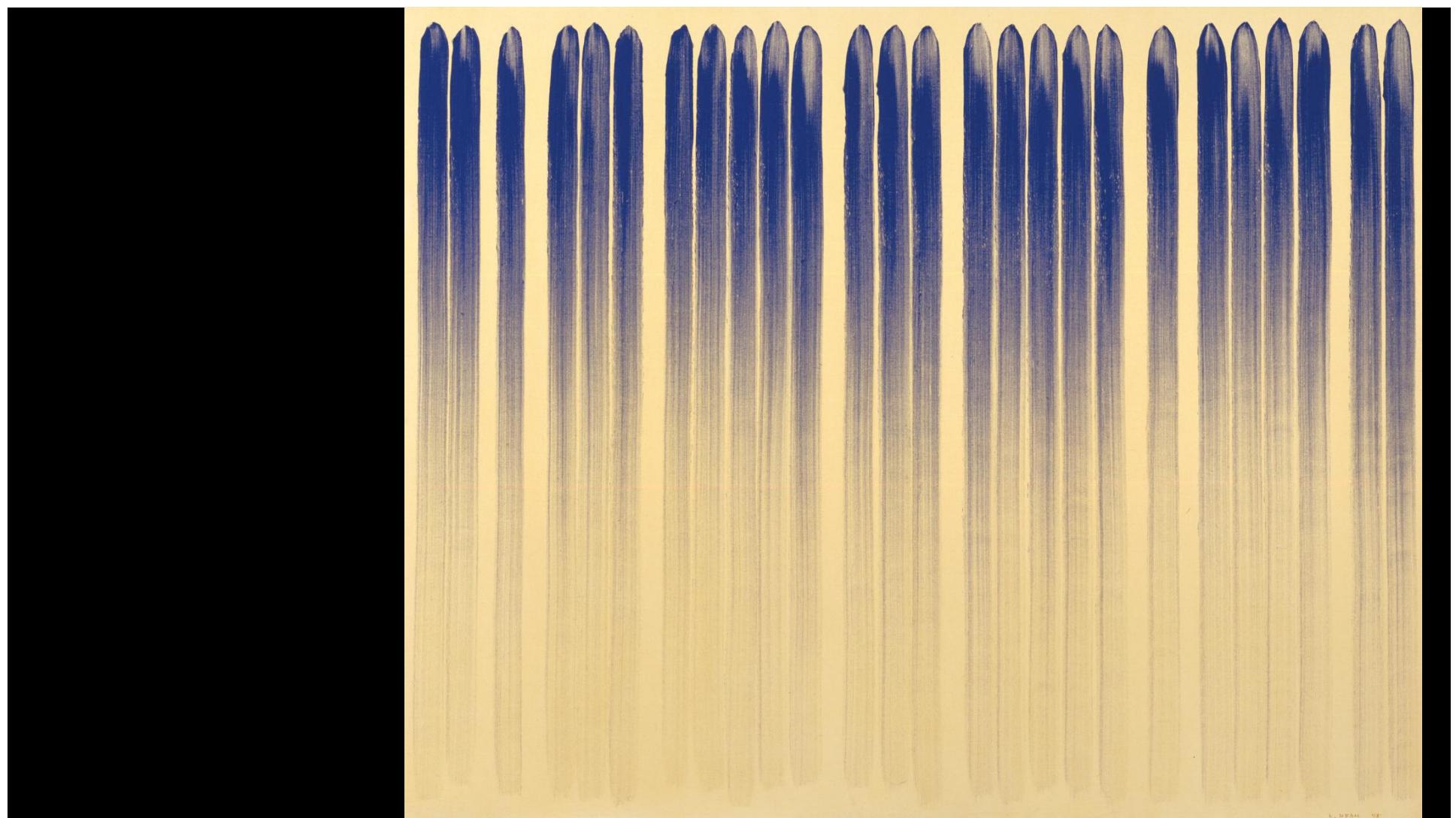


value

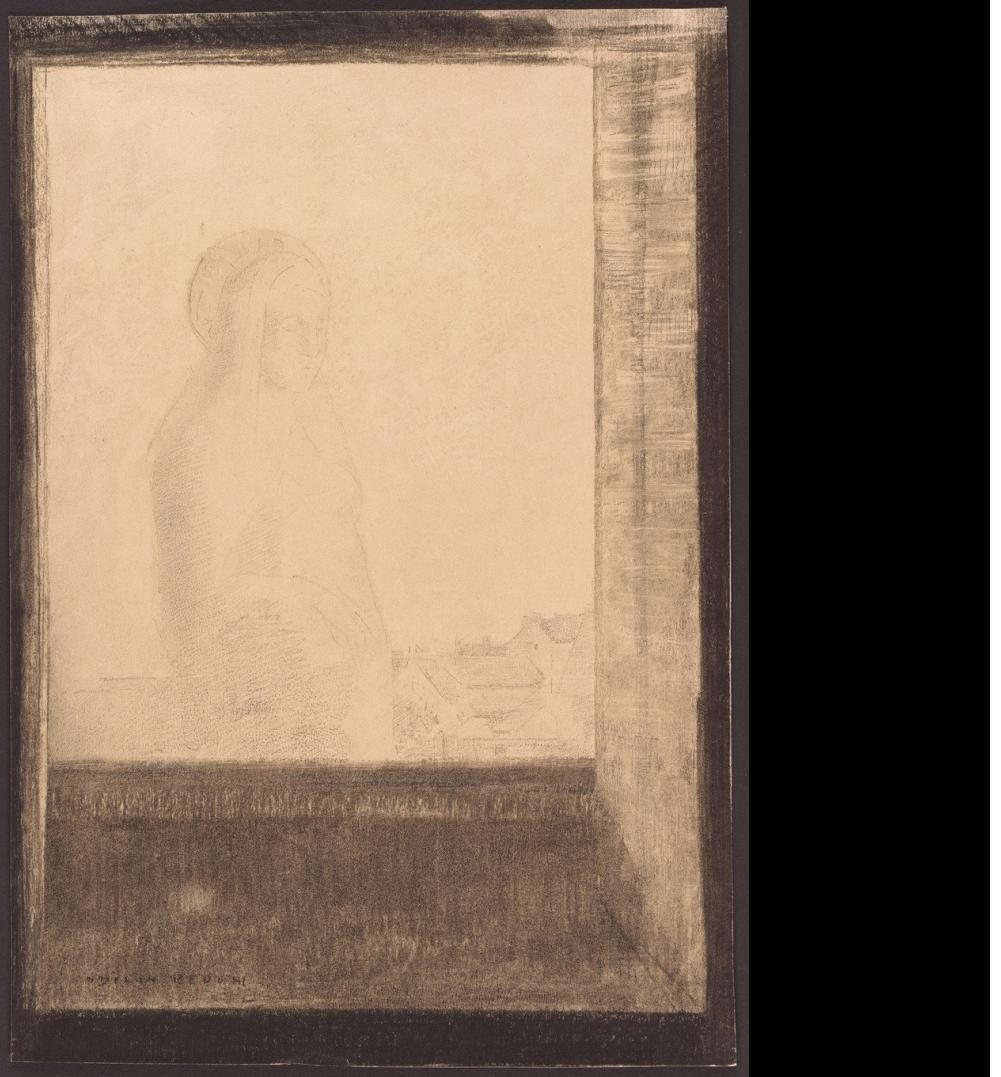
the various degrees between white and
black



L. Verner

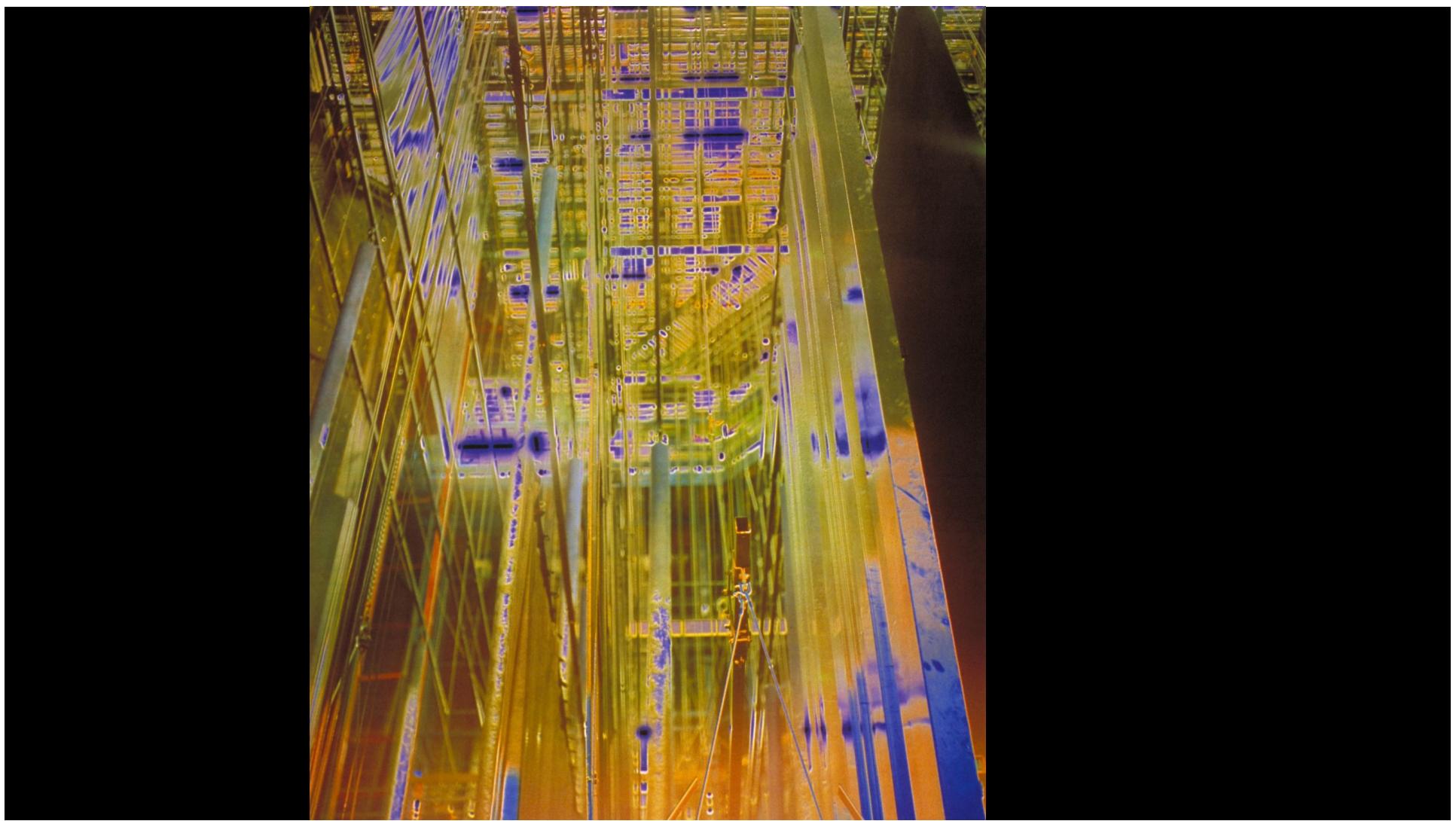






color

hue, using the repertoire of colored sensations which can be produced at equal value



size

varyations in height, width, area

SECONDS

MINUTES

HOURS

DAYS

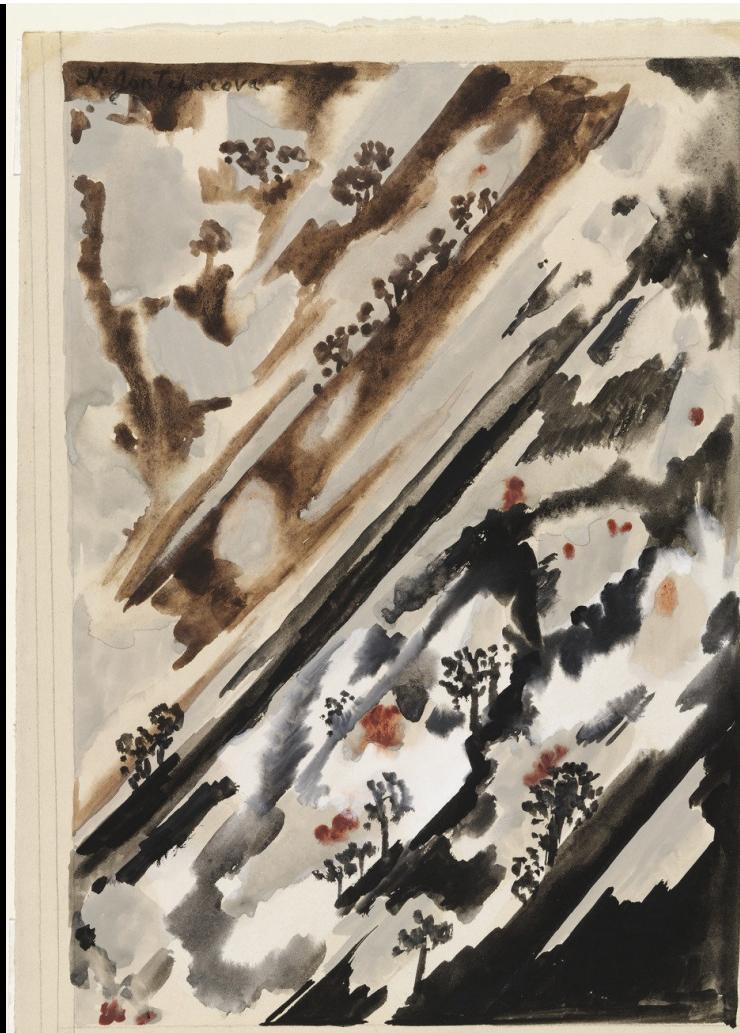
WEEKS

MONTHS

YEARS

orientation

various orientations, ranging from the vertical
to the horizontal in a distinct direction



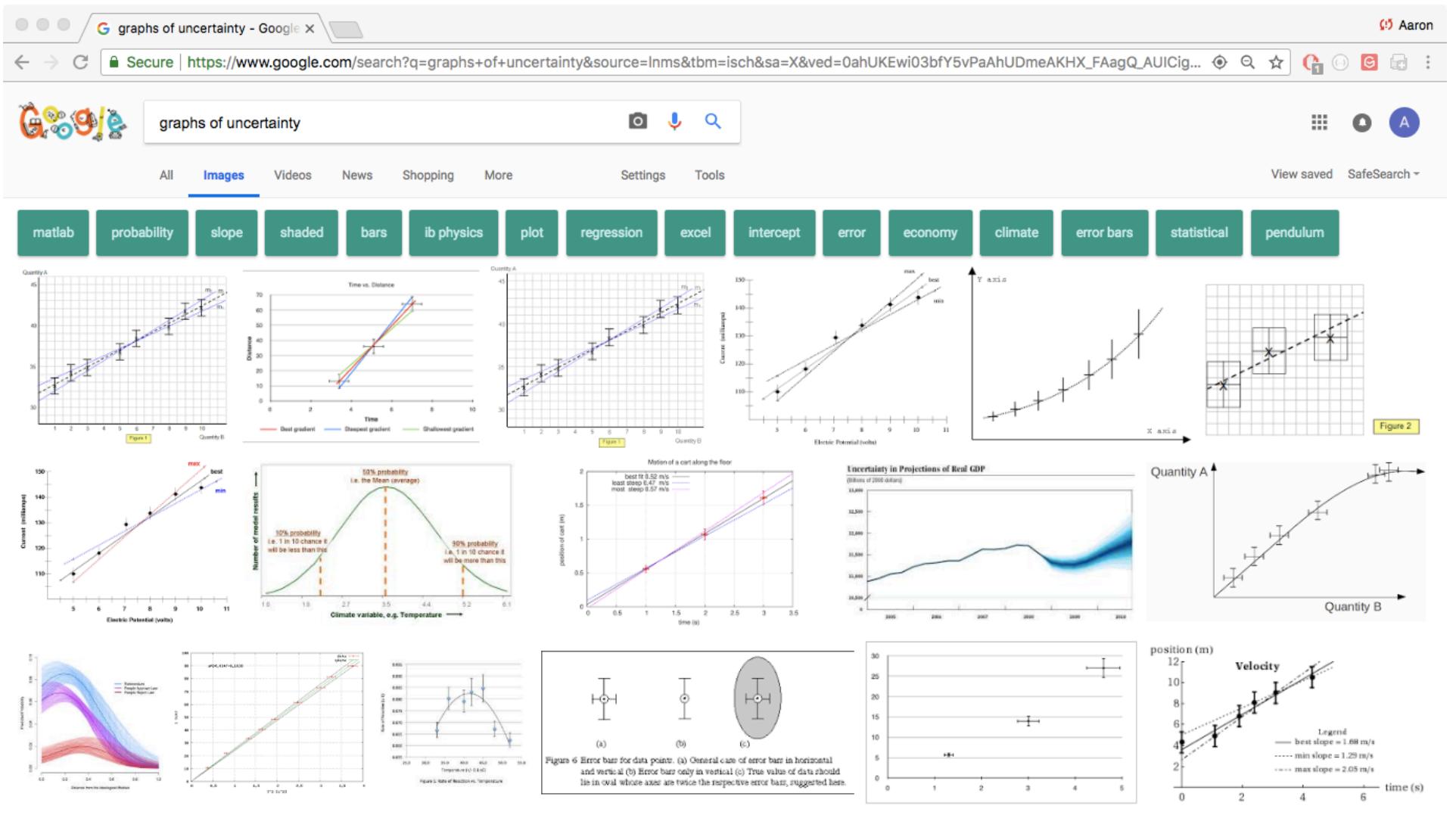
William Trost Richardson



findings and conclusions

uncertainty

<u>visual variable</u>	<u>mean</u>
placement	2.98
shape	2.92
texture/blur	1.98
value	1.97
orientation	1.68
size	0.99
color	0.42



The profound challenge we face is to accept the ambiguity of knowledge, the fundamentally interpreted condition on which data is constructed.

Drucker, 2014

uncertainty logo

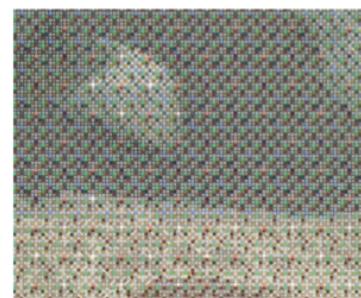
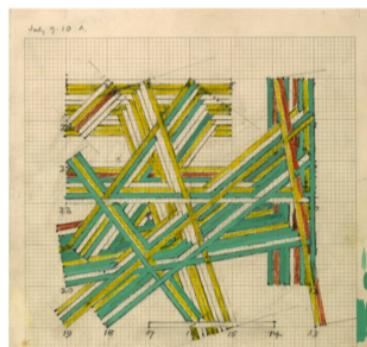
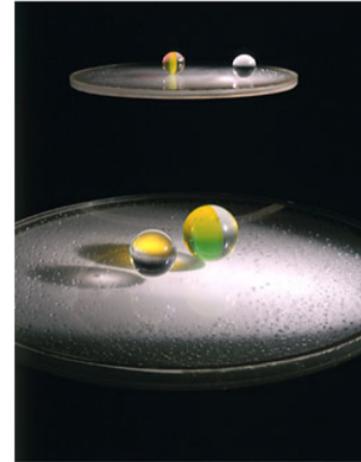
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45 images of **point** expressed through **color** with **maximum** results
0 images of **area** expressed through **texture** with **specific** results

signifiers
point
line
• **area**

variables
shape
color
orientation
• **texture**
value
size
position

range
• **specific**
maximum



Clare Churchouse:
churc186@newschool.edu

Aaron Hill:
aaron.hill@newschool.edu

Download these slides at:
<http://aaronhill.nyc/aapor.pdf>

References

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Cornelia Parker. Cold Dark Matter: An Exploded View. 1991. Wood, metal, plastic, ceramic, paper, textile and wire. 400 x 500 x 500 cm. Tate.

Cai Guo-Qiang. Drawing for Transient Rainbow. 2003. Gunpowder on two sheets of paper. 455 x 405 cm. Museum of Modern Art.

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James Turrell. Frontal Passage. 1994. Light. 392 x 686 x 1036 cm. Museum of Modern Art.

Luigi Veronesi. Photo n.152. 1940, printed 1970s. Photograph, gelatin silver print on paper. 32 x 30cm. Tate.

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Catherine Yass. Stage. 1997. Screenprint on paper. 89 x 74 cm. Tate.

Ed Ruscha. Untitled. 2015. Acrylic on canvas. 183 x 315 cm. Gagosian.

Natalia Goncharova. Composition. 1920. Watercolor on paper. 28 x 20 cm. Museum of Modern Art.

Monika Sosnowska. The Tired Room. 2005. Painted mdf. Installation view, Freud Museum, Vienna, Austria. Capitain Petzel.

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