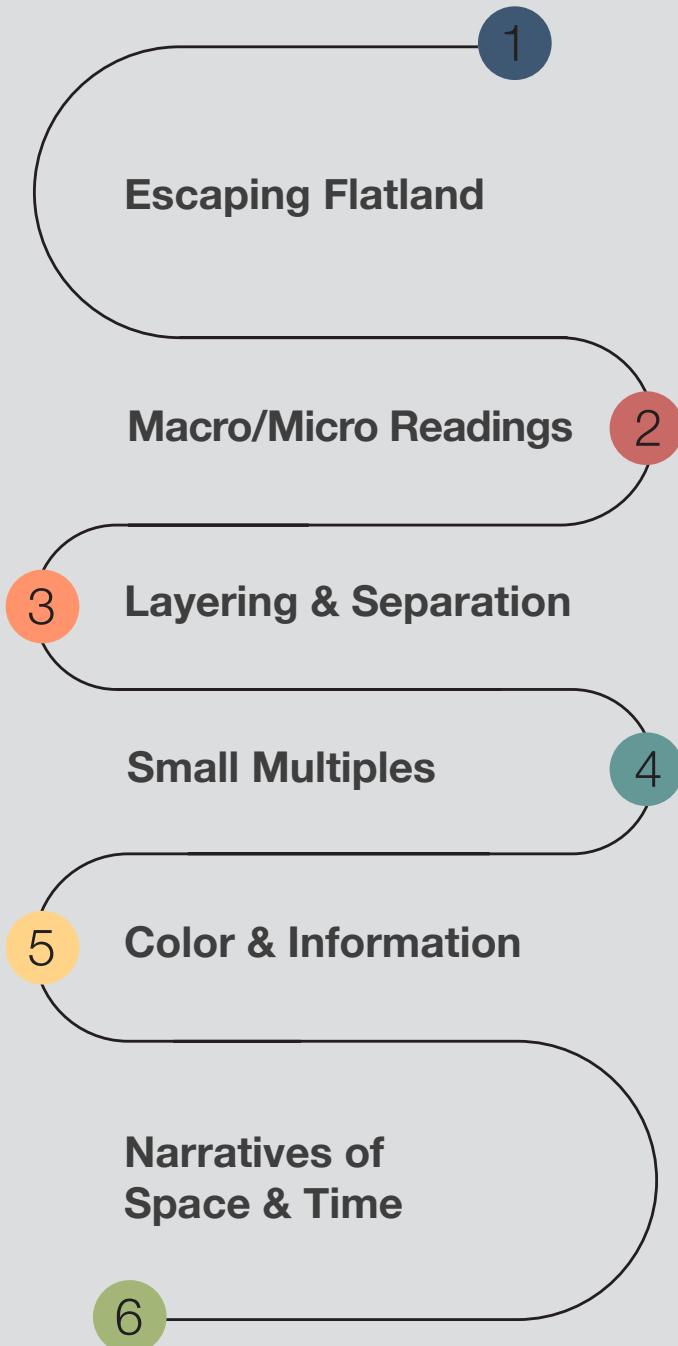
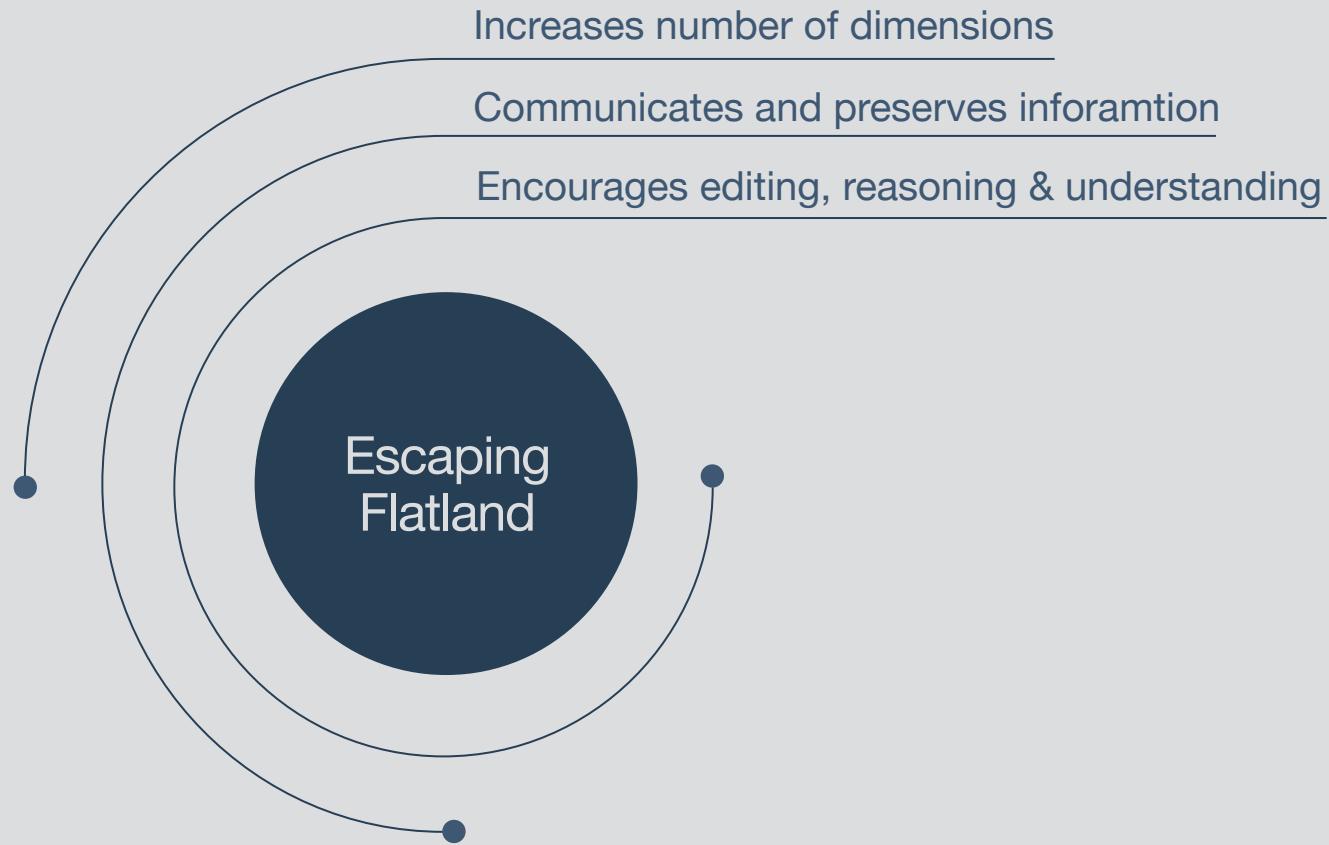


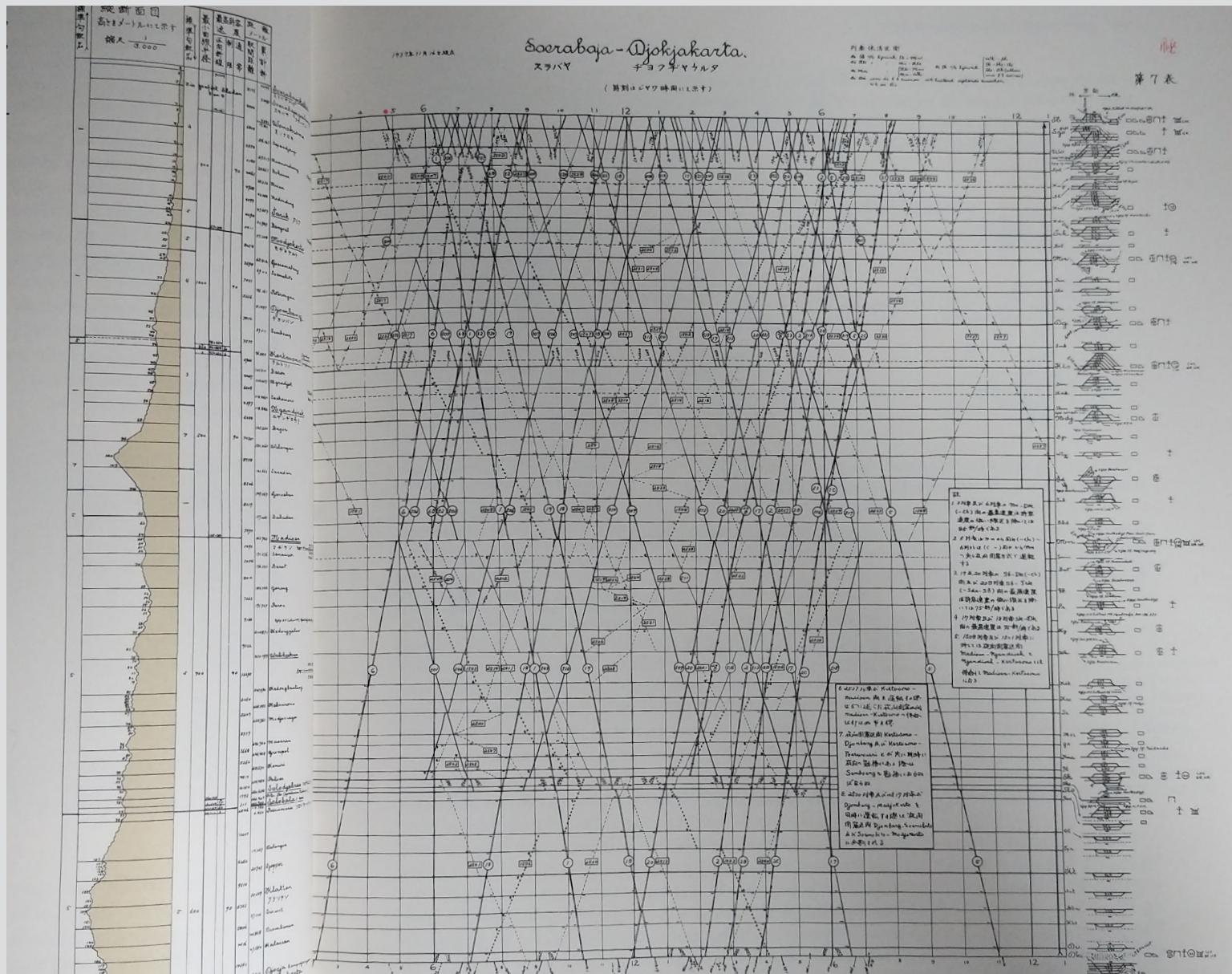
Envisioning Information

Edward Tufte

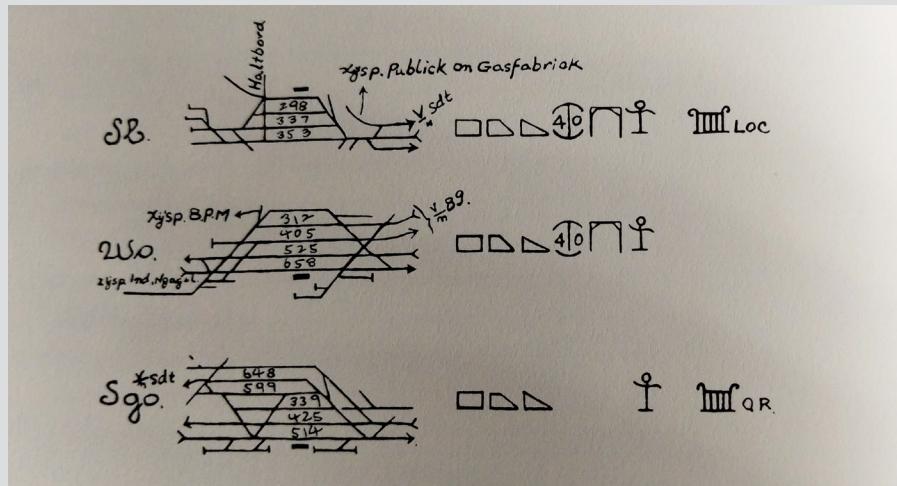
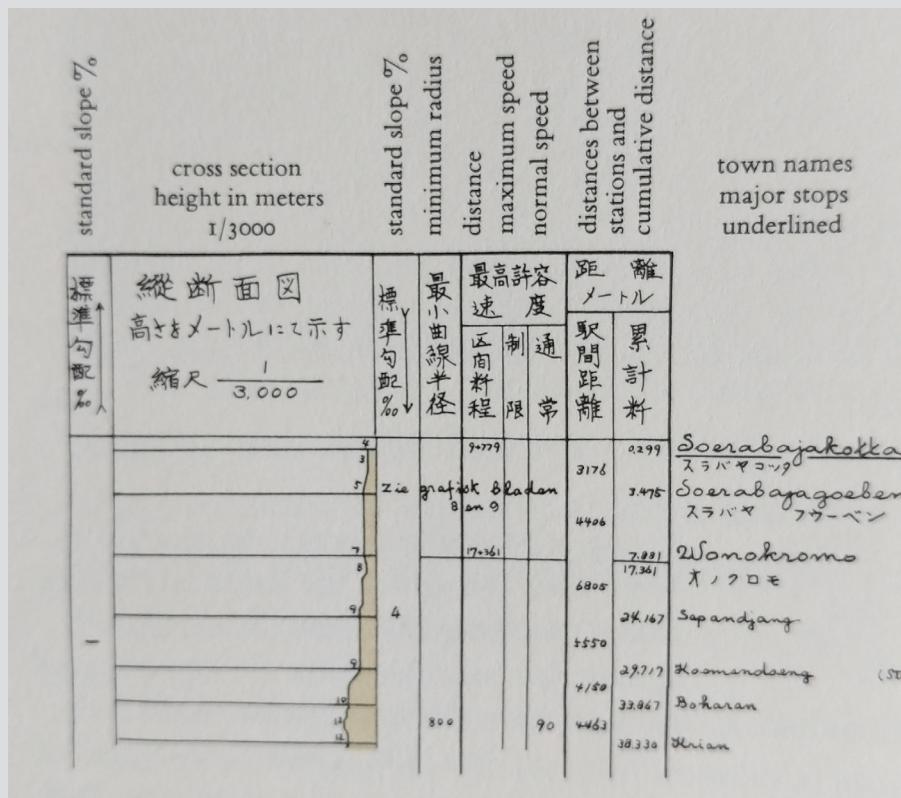


Escaping Flatland





Escaping Flatland | Image: Java railroad line, Seorabaja-Djokjakarta, 1937



- ▵ cargo unloading platform
- △ livestock loading platform
- ④⑩ □ cargo unloading facilities
- ⌚ water supply pump tower
- ⑪⑫ directional change platform
- car repair platform
- Loc standby engines
- QR relief car
- Spd closed areas

CRIMINAL ACTIVITY OF GOVERNMENT INFORMANTS

CRIME	CARDINALE	LOFARO	MALONEY	POLISI	SENATORE	FORONJY	CURRO
MURDER	X	X					
ATTEMPTED MURDER		X	X				
HEROIN POSSESSION AND SALE	X	X			X		
COCAINE POSSESSION AND SALE	X		X	X			X
MARIJUANA POSSESSION AND SALE							X
GAMBLING BUSINESS		X		X		X	X
ARMED ROBBERIES	X		X	X	X		X
LOANSHARKING		X		X			
KIDNAPPING			X	X			
EXTORTION			X	X			
ASSAULT	X		X	X			X
POSSESSION OF DANGEROUS WEAPONS	X	X	X	X	X		X
PERJURY		X					X
COUNTERFEITING					X	X	
BANK ROBBERY			X	X			
ARMED HIJACKING				X	X		
STOLEN FINANCIAL DOCUMENTS			X	X	X		
TAX EVASION				X			X
BURGLARIES	X	X		X	X		
BRIBERY		X		X			
THEFT: AUTO, MONEY, OTHER			X	X	X	X	X
BAIL JUMPING AND ESCAPE			X	X			
INSURANCE FRAUDS					X	X	
FORGERIES				X	X		
PISTOL WHIPPING A PRIEST	X						
SEXUAL ASSAULT ON MINOR							X
RECKLESS ENDANGERMENT							X

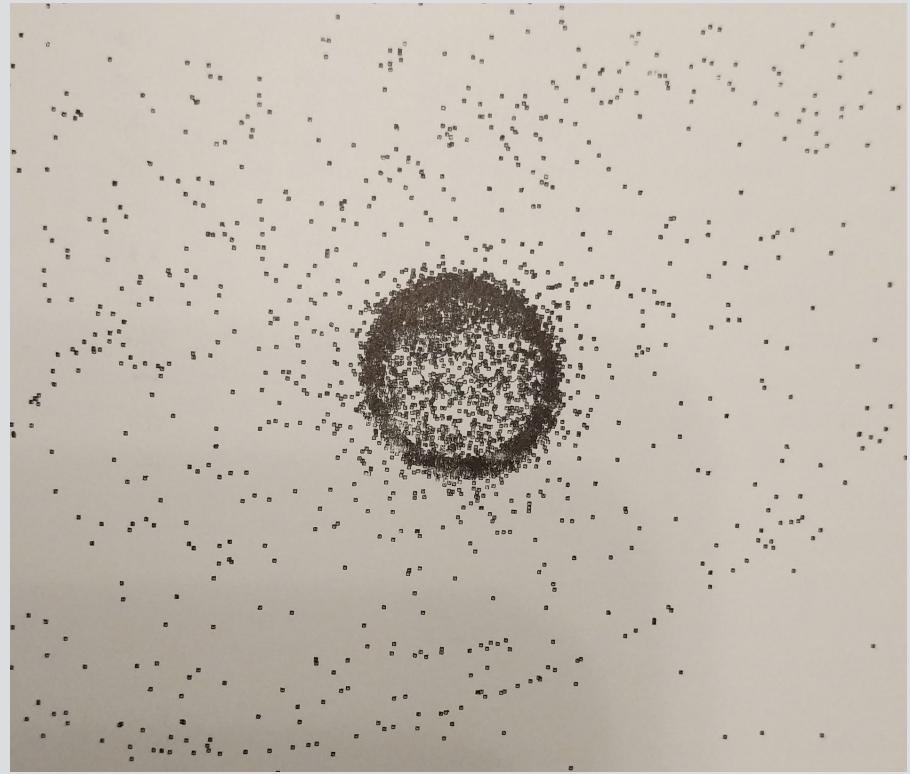
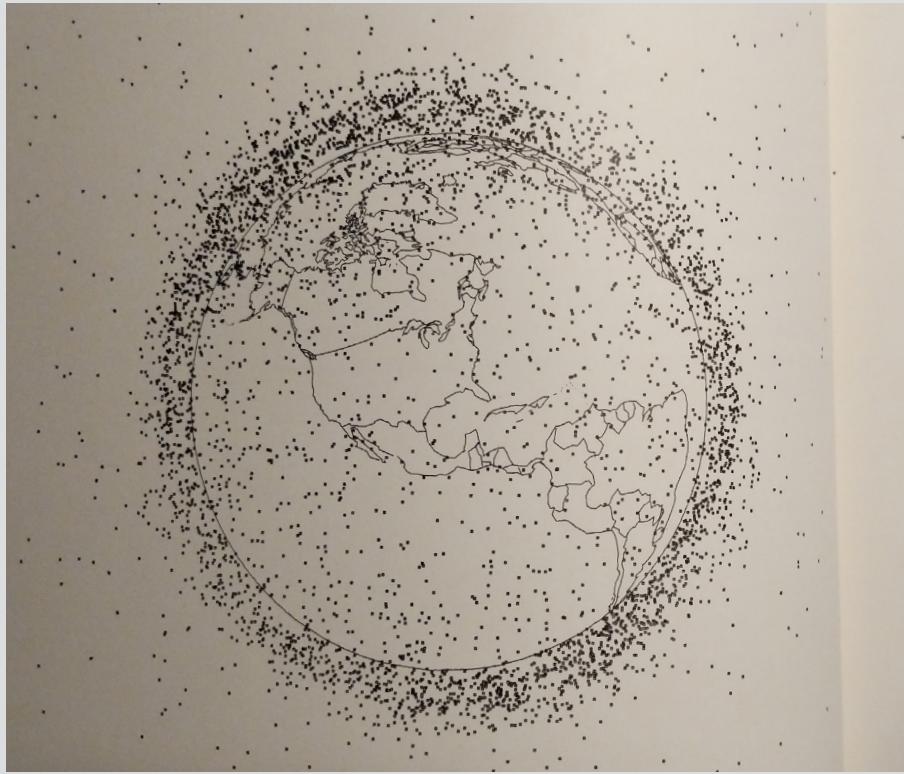
Micro/Macro Readings

“God is in the details” - MVDR

The world we seek to understand is
complex and **intricate**.

High-density designs allow viewers to
select, and **personalize**
data for their own uses.

High-density designs keep
suspicions away.



Micro/Macro Readings | Illustration: Nicholas L. Johnson.

Q

What about confusing clutter?
Information overload?
Doesn't data have to be "simplified"?

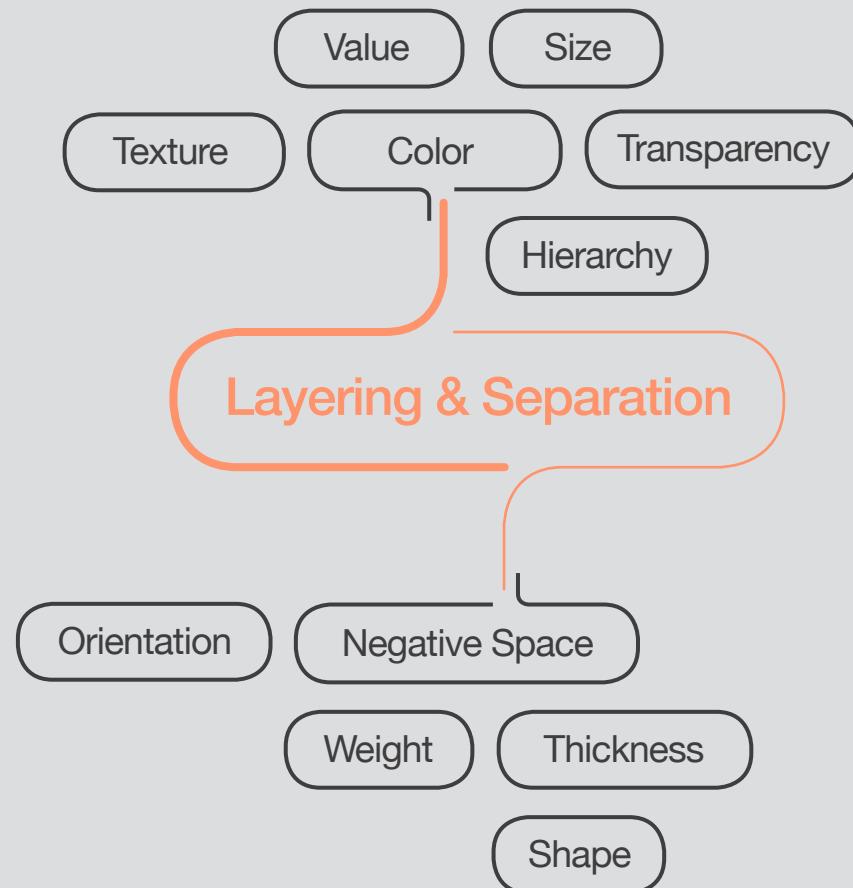
quantity of details vs legibility.

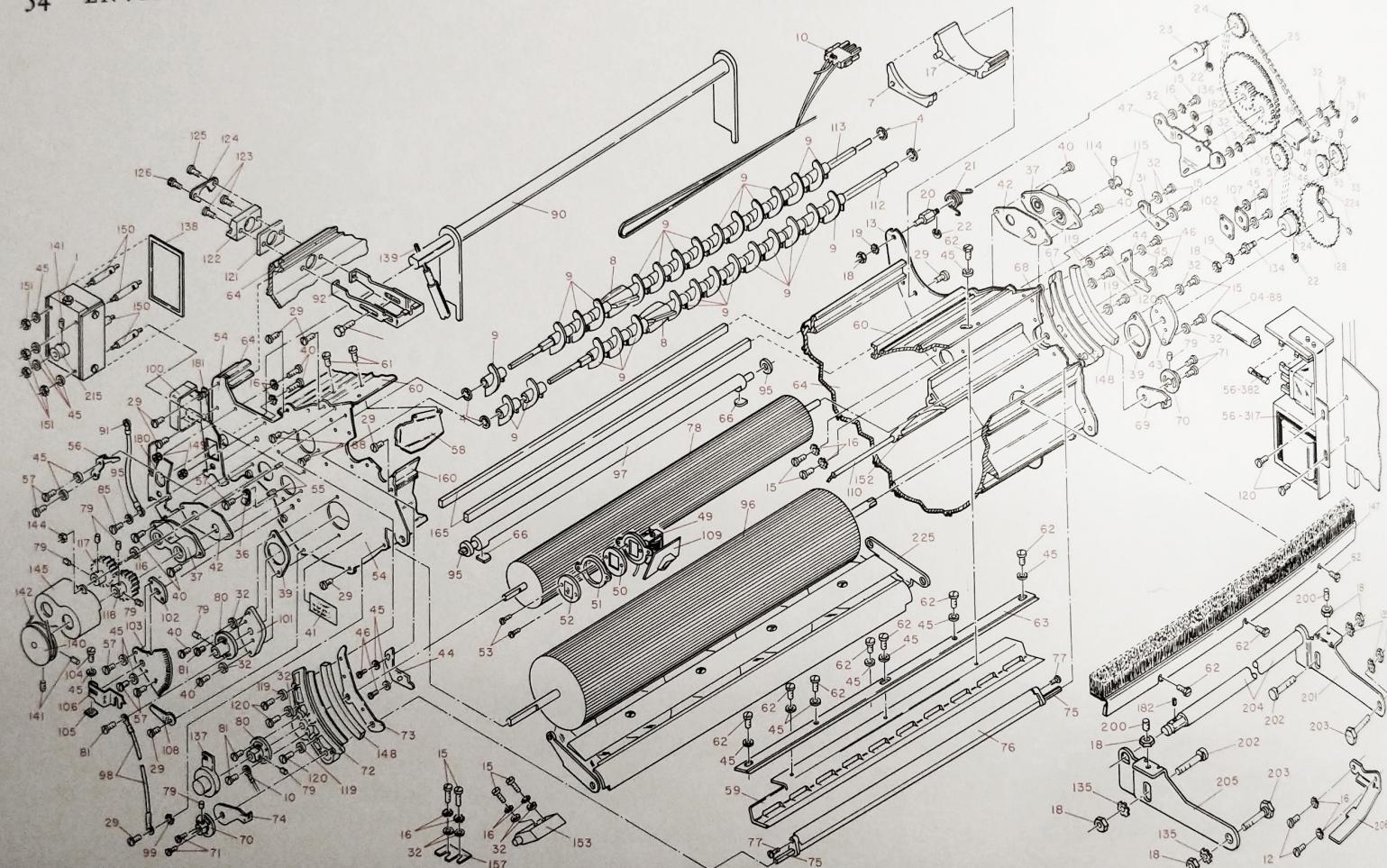


Layering & Separation

“One Plus One Equals Three or More” - Josef Albers

Information consists of **differences**
that **make a difference**







1 + 1 = 3 or more.

Josef Albers

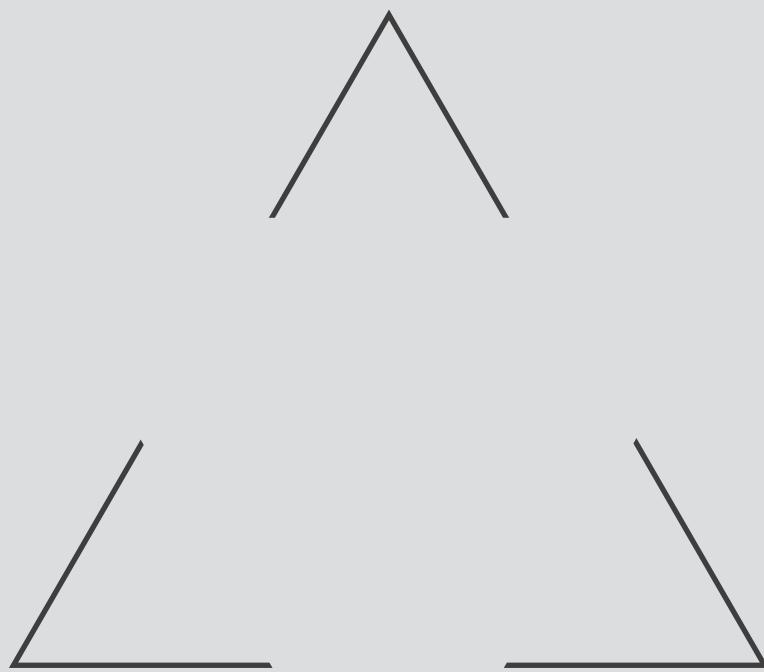
we know that

$$\begin{array}{ccccc} \text{orange bar} & + & \text{black bar} & = & \text{orange bar} & \text{black bar} \\ \cdot & & \cdot & & \cdot & \cdot \\ 1 & + & 1 & = & 2 & \end{array}$$

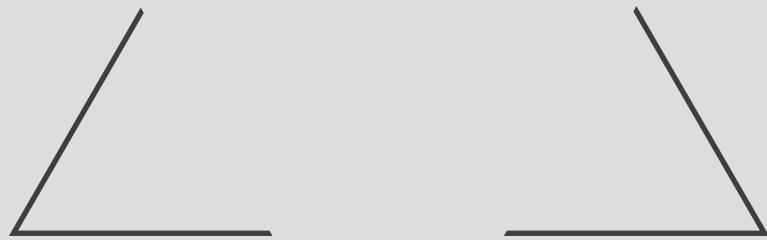
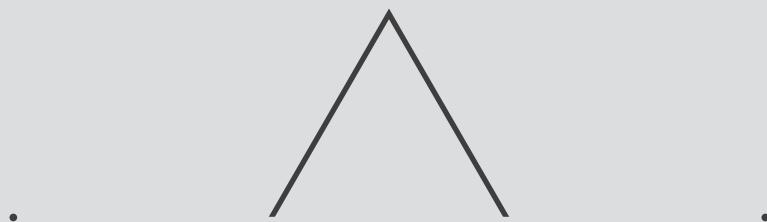
with a little separation



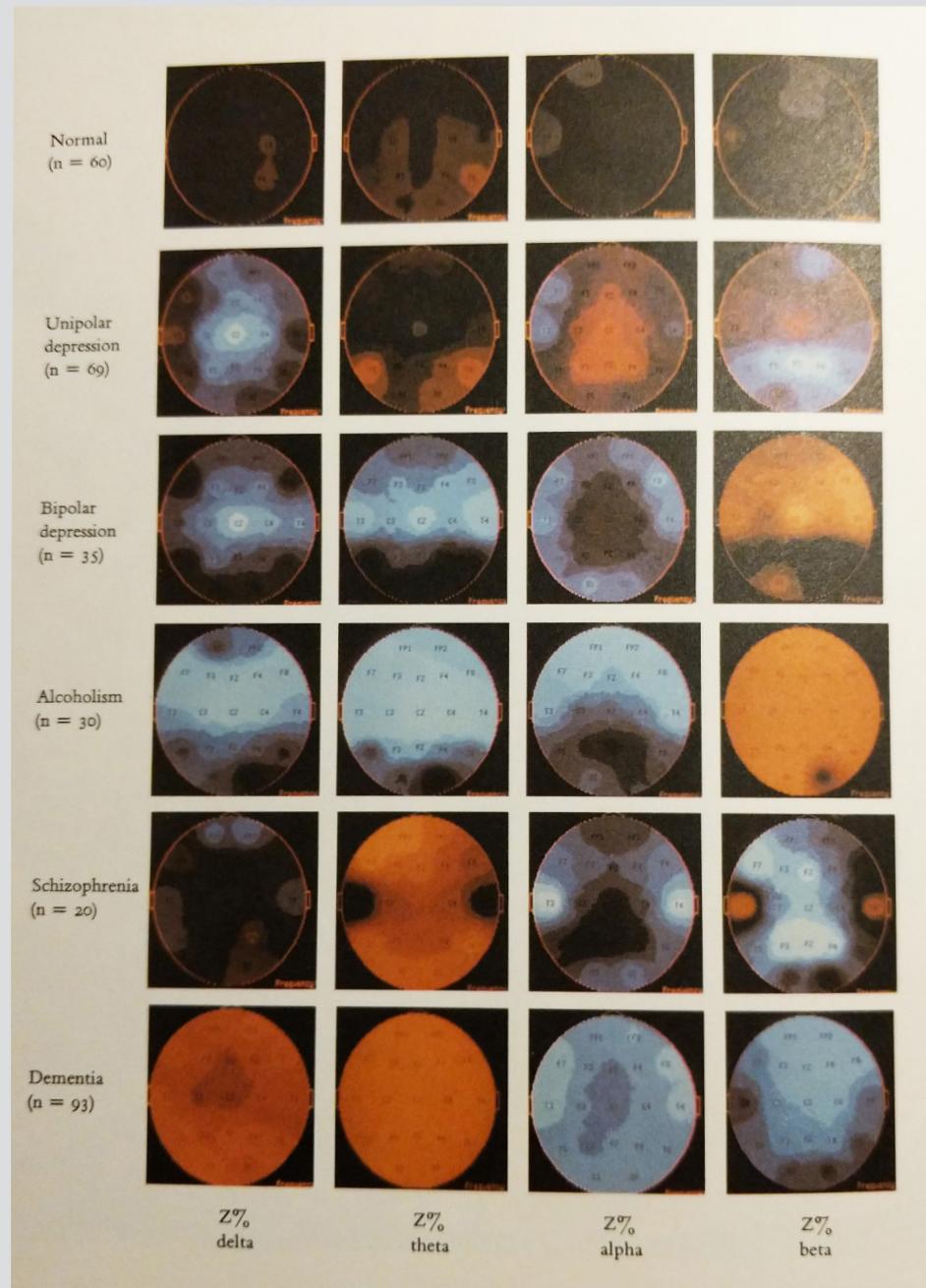
$$\begin{array}{ccccc} \text{orange bar} & + & \text{black bar} & = & \text{orange bar} & \text{black bar} \\ \cdot & & \cdot & & \cdot & \cdot \\ 1 & + & 1 & = & 3 & \end{array}$$



Layering and Separation

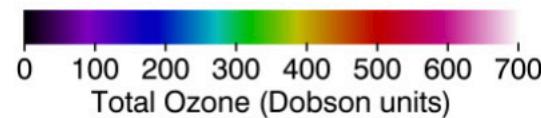
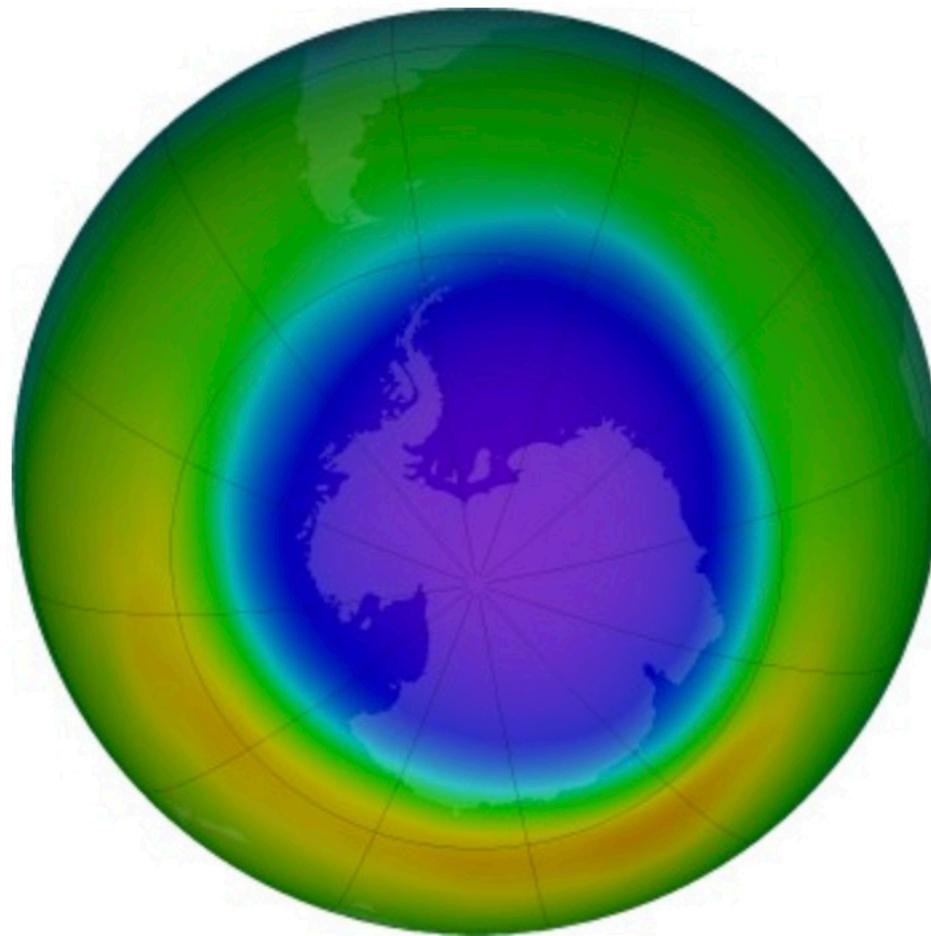


Small Multiples

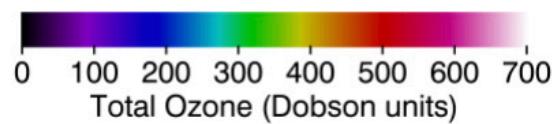
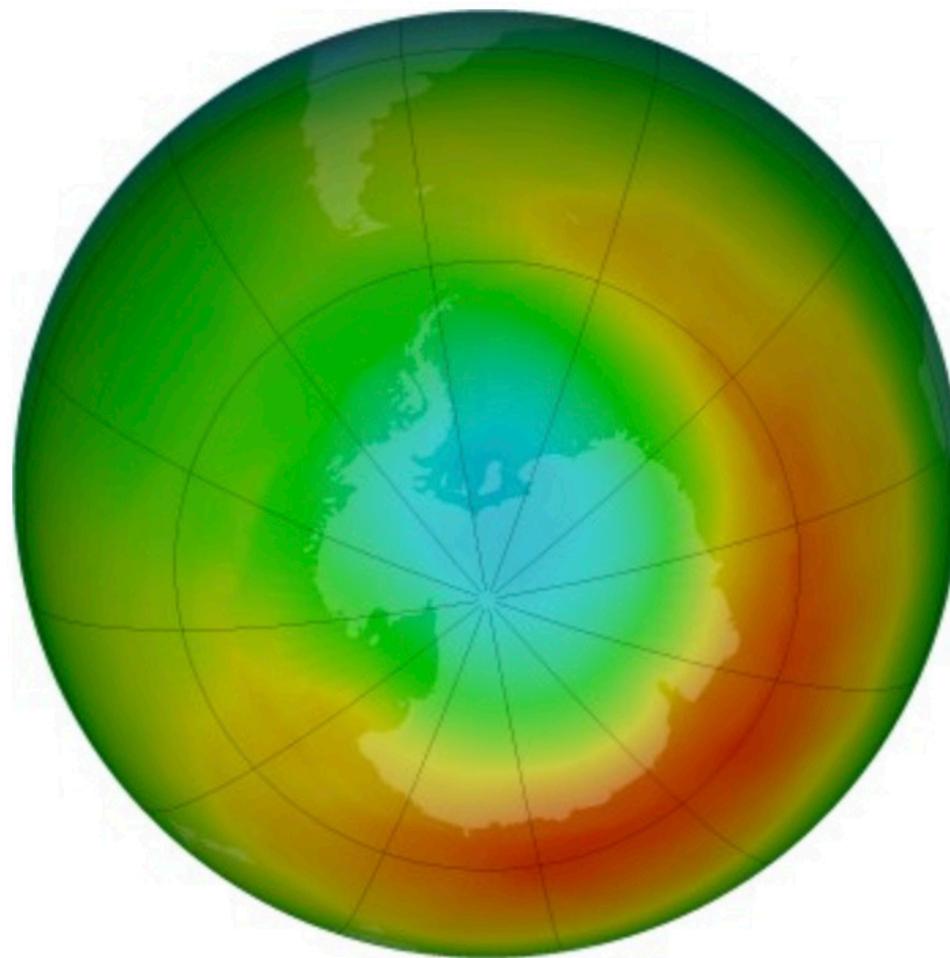


Small Multiples | Neurometric: Computer-Assisted Differential Diagnosis of Brain Dysfunctions.
E. R. John, L. S. Prichep, J. Fridman, and P. Easton.

October 2018



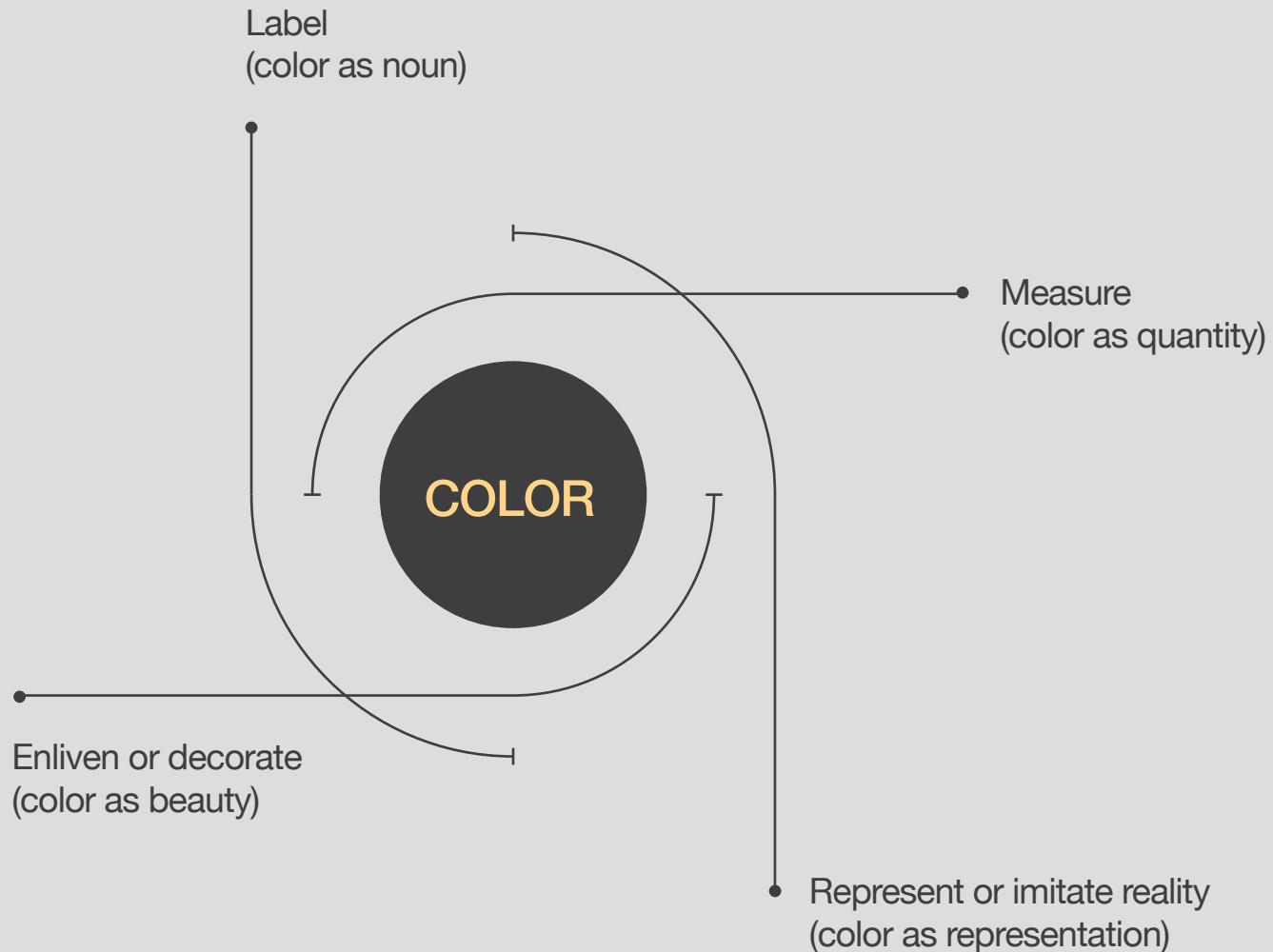
October 1979



Color & Information

“To paint well is simply this: to put the right color in the right place” - Paul Klee

We use **colors** in **information design** to





Colors and Information | Primary Home Heating Fuel, by Counties of the United States

1970



Colors and Information | Primary Home Heating Fuel, by Counties of the United States

Narratives of Space & Time

NEW YORK TO NEW HAVEN

MONDAY TO FRIDAY, EXCEPT HOLIDAYS

Leave	Arrive	Leave	Arrive	Leave	Arrive
New York	New Haven	New York	New Haven	New York	New Haven
AM 12:35 5:40 7:05 8:05 9:05 10:05 11:05 12:05 1:05 PM	AM 2:18 7:44 8:45 9:45 10:45 11:45 12:45 1:45 2:45 PM	PM 2:05 3:05 4:45 4:41 4:59 5:02E 5:20 5:42 6:07E PM	PM 3:45 4:45 5:45 6:25 6:53 6:33 7:06 7:26 7:46 PM	PM T 8:25 T 7:05 T 8:05 T 9:05 10:05 11:20 12:35 PM	PM 8:19 8:56 9:45 10:50 11:45 1:05 2:18 PM

SATURDAY, SUNDAY & HOLIDAYS

AM	AM	PM	PM	PM	PM
12:35	2:18	2:05	3:45	7:05	8:45
5:40	7:37	S 3:05	S 4:45	H 8:05	H 9:45
8:05	9:45	4:05	5:45	9:05	10:45
10:05	11:47	5:05	6:48	11:20	1:00
12:05	1:45	6:05	7:48	12:35	2:18
PM	PM	PM	PM	AM	AM

The service shown herein is operated by
Metro-North Commuter R.R.

REFERENCE NOTES

Economy off-peak tickets are not valid on trains in shaded areas.

Check displays in G.C.T. for departure tracks.

E-Express

X-Does not stop at 125th Street.

S-Saturdays and Washington's Birthday only.

H-Sundays and Holidays only.

T-Snack and Beverage Service.

HOLIDAYS-New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas.

NEW YORK → NEW HAVEN

Grand Central Station

Monday to Friday,
except holidays

Leaves
New York

Arrives
New Haven

12:35 am 2.18
5:40 am 7.44 am
7:05 8.45
8:05 9.45
9:05 10.45
10:05 11.45
11:05 12.45 pm
12:05 pm 1.45
1.05 2.45
2.05 3.45
3.05 4.45

4.01 5.45
4.41 6.25
4.59 6.53
x 5.02 • 6.33
5.20 • 7.08
5.42 • 7.26
x 6.07 • 7.46
6.25 8.19
7.05 8.56
8.05 9.45
9.05 10.50
10.05 11.45
11.20 1.05 am
12.35 am 2.18

X Express
• Does not stop at 125th Street

Holidays: New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas.

Saturday, Sunday,
and holidays

Leaves
New York

Arrives
New Haven

12.35 am 2.18
5.40 am 7.37 am
8.05 9.45
10.05 11.47
12.05 pm 1.45 pm
2.05 3.45
3.05 Saturdays 4.45
4.05 5.45
5.05 6.48
6.05 7.42
7.05 8.45
8.05 Sundays 9.45
9.05 10.45
11.20 1.00 am
12.35 am 2.18

Economy off-peak tickets are
not valid on trains in boxed areas.