

Designers Light Forum

The Poetics of Darkness

Florencia Castro | Monica Llamas

March 12, 2019



All rights reserved. This presentation or any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of the owners, Florencia Castro & Monica Llamas - March, 2019.

dark·ness

| THE POETICS OF DARKNESS | *COPYRIGHT © 2019 CASTRO, LLAMAS ALL RIGHTS RESERVED*

/ˈdɑːknəs/ 

noun

noun: **darkness**; plural noun: **darknesses**

1. the partial or total absence of light.

"the office was in darkness"

synonyms: **dark**, **blackness**, absence of light, **gloom**, gloominess, dimness, **dullness**, **murk**, murkiness, shadowiness, **shadow**, **shade**, shadiness, **dusk**, **twilight**, **gloaming**;

rare tenebrosity

"lights shone in the darkness"

antonyms: **light**

- night.

"they began to make camp before darkness fell"

synonyms: **night**, **nighttime**, **dark**, hours of darkness

"the sun went down, and darkness fell"

antonyms: **day**

- the quality of being dark in color.

"the darkness of his jacket"

synonyms: **dark**, **blackness**, absence of light, **gloom**, gloominess, dimness, **dullness**, **murk**, murkiness, shadowiness, **shadow**, **shade**, shadiness, **dusk**, **twilight**, **gloaming**;

rare tenebrosity

"lights shone in the darkness"

antonyms: **light**

2. wickedness or evil.

"the forces of darkness"

synonyms: **evil**, **wickedness**, **corruption**, **sin**, sinfulness, **iniquity**, **immorality**, **devilry**, the Devil, **hell**

"the forces of darkness"

antonyms: **good**

- unhappiness, distress, or gloom.

"moments of darkness were rare"

- secrecy or mystery.

"they drew a veil of darkness across the proceedings"

- lack of spiritual or intellectual enlightenment; ignorance.

"his accomplishments shone in a world of darkness"

- Identify **typical misconceptions** around darkness and its influence in our current practice.
- Expand on **darkness & light** and its **relationship and value** to the lighting design practice.
- Analyze current light level recommendations and promote the use of **darkness as design strategy**.
- Rethink darkness as a **relative notion** in place of an absolute condition.

Credit(s) earned on completion of this course will be reported to **AIA CES** for AIA members. Certificates of Completion for both AIA members and non-AIA members are available upon request.

This course is registered with **AIA CES** for continuing professional education. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the AIA of any material of construction or any method or manner of handling, using, distributing, or dealing in any material or product.

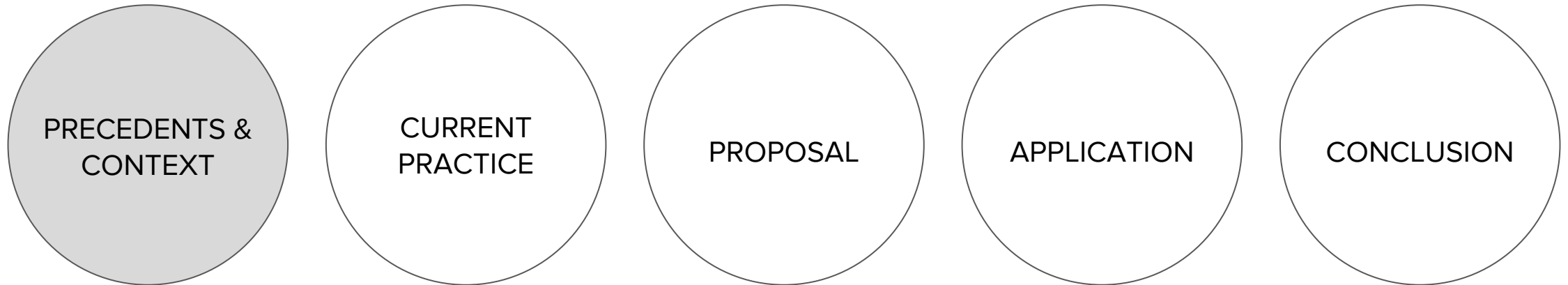
Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

Why do we tend to avoid darkness
in our design proposals?

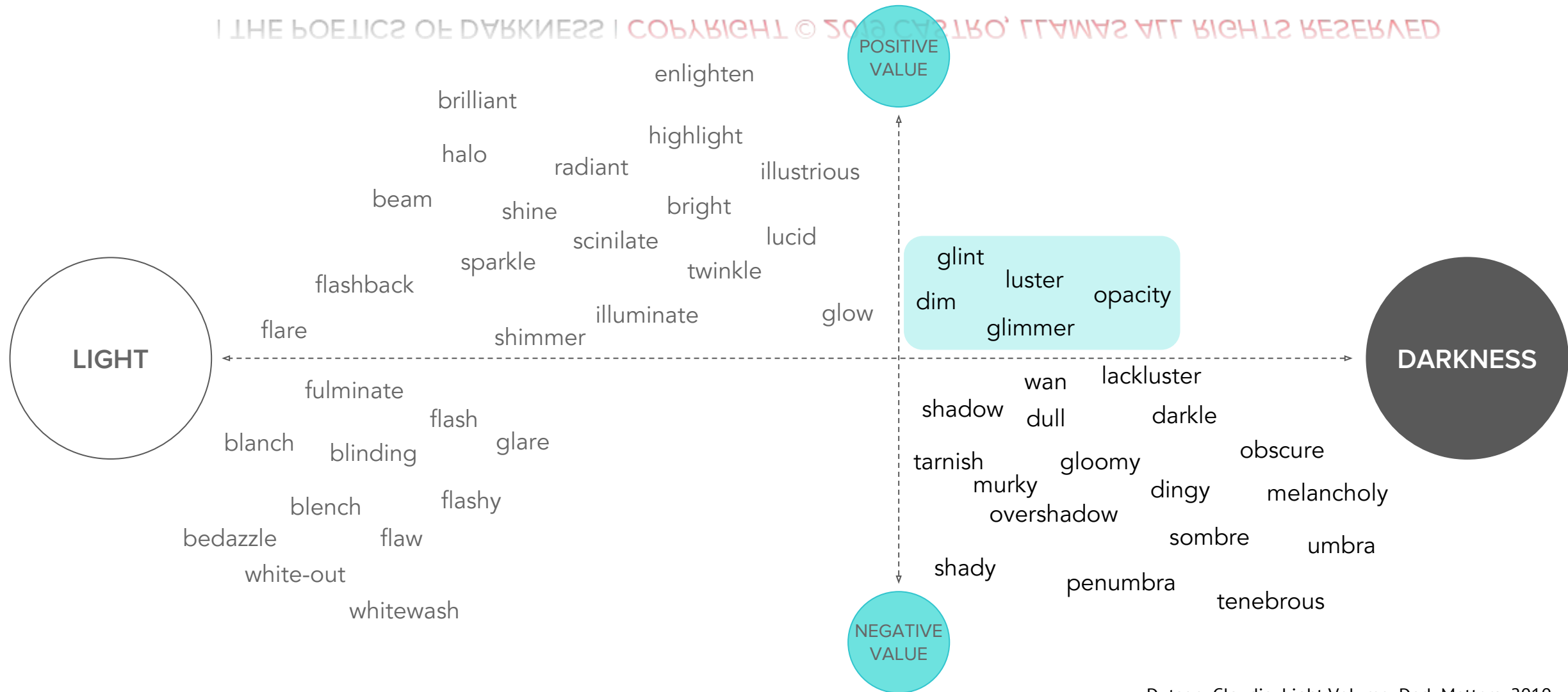
Yale Art Museum | Louis Kahn | 1953



leducation.org







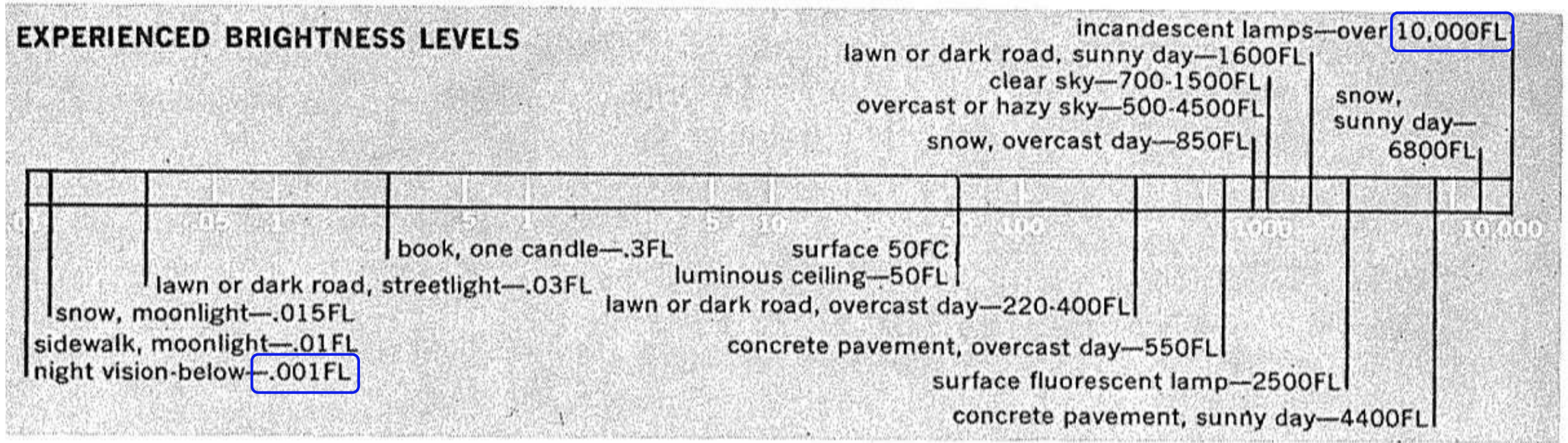
Dutson, Claudia. Light Volume, Dark Matters. 2010.



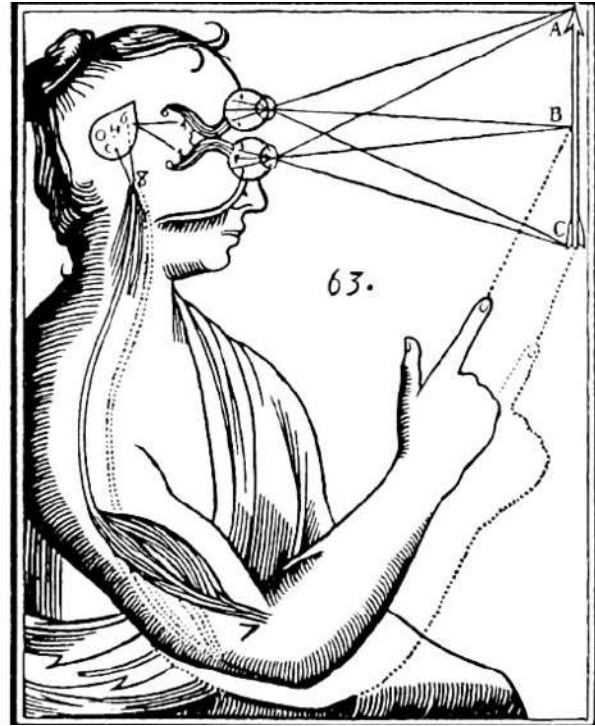
Petrus van Schendel | 1806-1870



Childhood of Christ | Gerrit Van Honthorst | 1590-1656



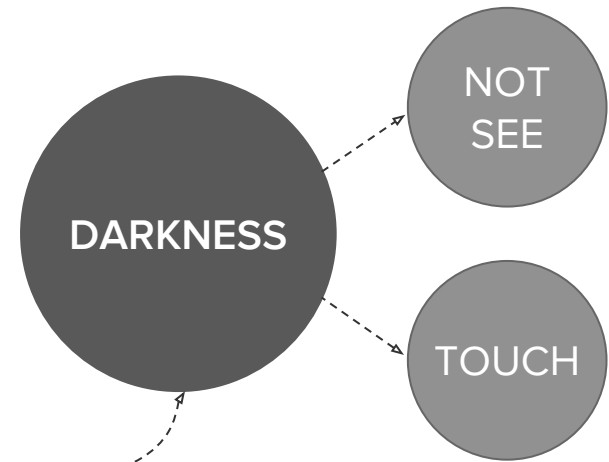
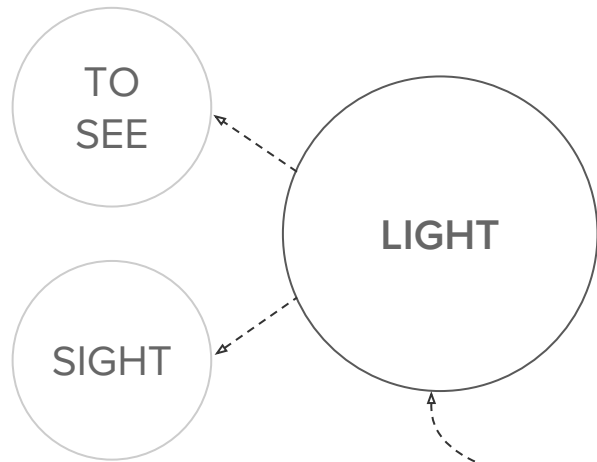
Mc Lam, William. Perception and Lighting as Formgivers for Architecture. McGraw-Hill Inc.,US. 1977.



Lonesome Big City Dweller | Herbert Bayer | 1932



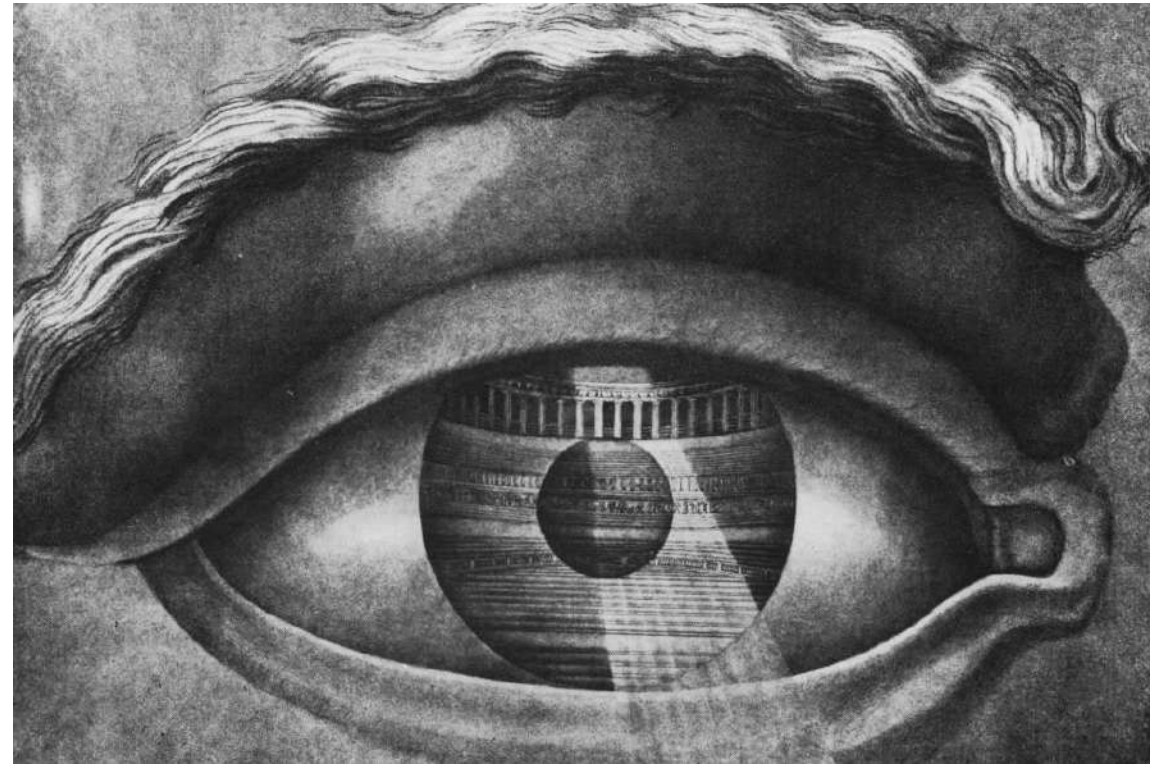
René Descartes | Dualism Mind and Body



- Centered on the sense of sight as a primordial means to understand the world, suppression of multi- sensorial experience



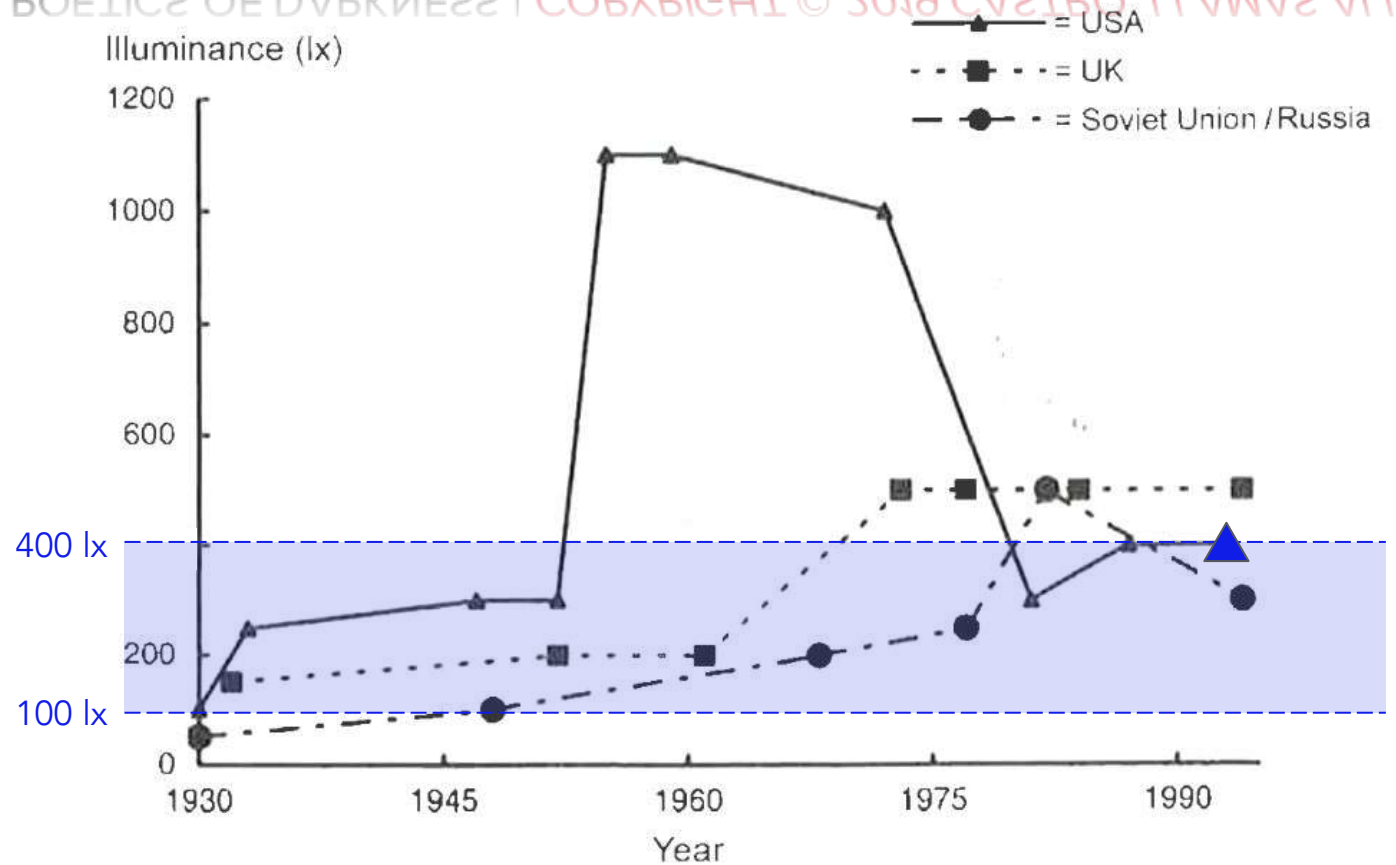
Un Chien Andalou | Luis Buñuel | 1929



Besançon Theatre | Claude Nicolas Ledoux | 1847

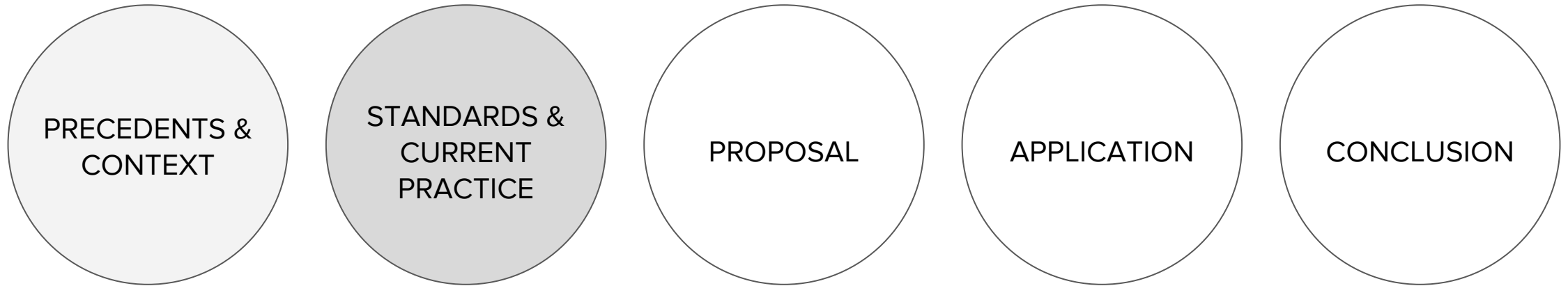
- Cities and spaces today appeal mainly to the sense of sight through the use of electric lighting
- Trend in PRO of light and AGAINST darkness





Boyce, Peter R. *Human Factors in Lighting*. CRC Press: 2nd Edition. 2003

Figure 14.1 Illuminances recommended for general offices in the US, UK, and the Soviet Union/Russia since 1930 (after Mills and Borg, 1999).





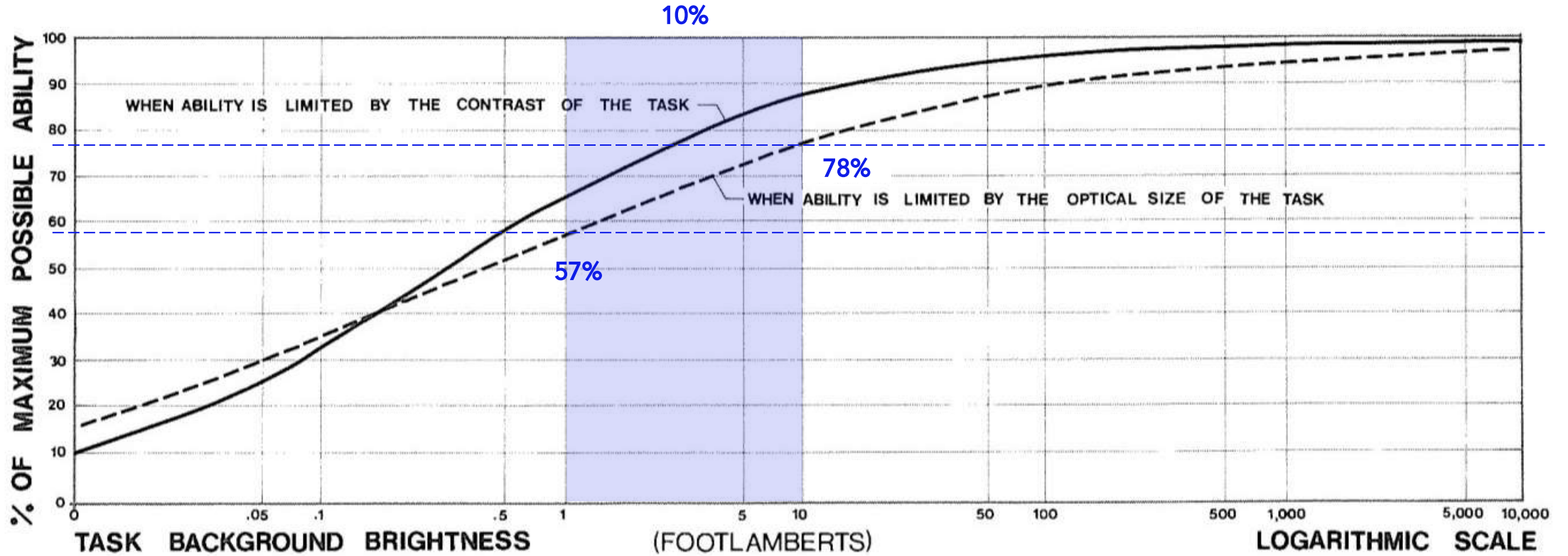
- Uniform & homogeneous
- Lack of depth and spatial hierarchy
- Brightness = safety



- Even Illumination = shadowless
- Disorientation, lack of depth



increasing the amount of light is not synonymous of greater or better productivity



Mc Lam, William. *Perception and Lighting as Formgivers for Architecture*. McGraw-Hill Inc., US. 1977.



Exploration - Temporality and Depth - Darkness & Shadows

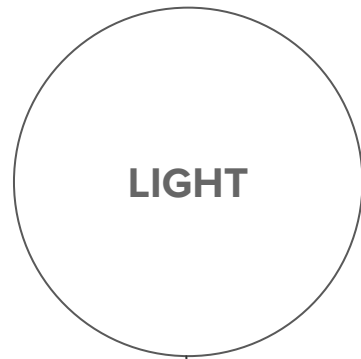
Yale Art Gallery | Louis Kahn | 1953

Materiality - Multisensory Experience - New Rhythm of Perception

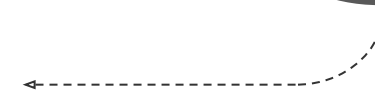
POETICS OF DARKNESS

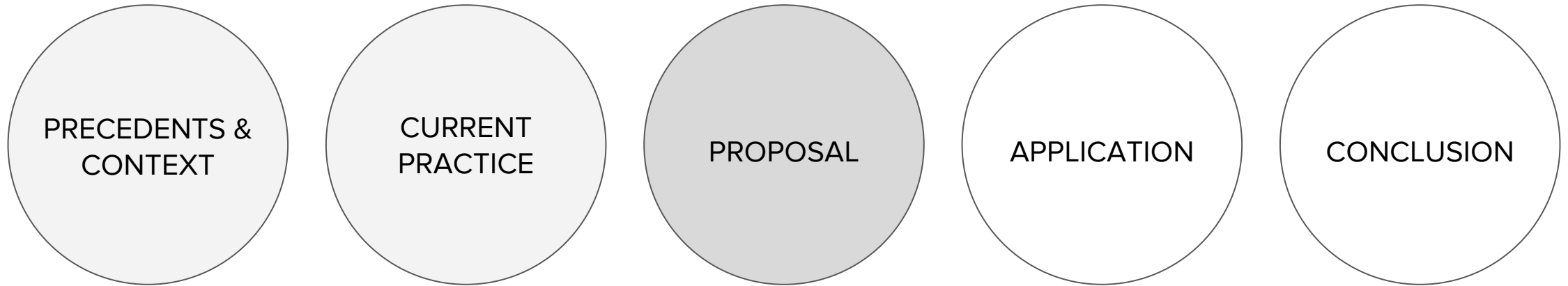


[leducation.org](https://education.org)



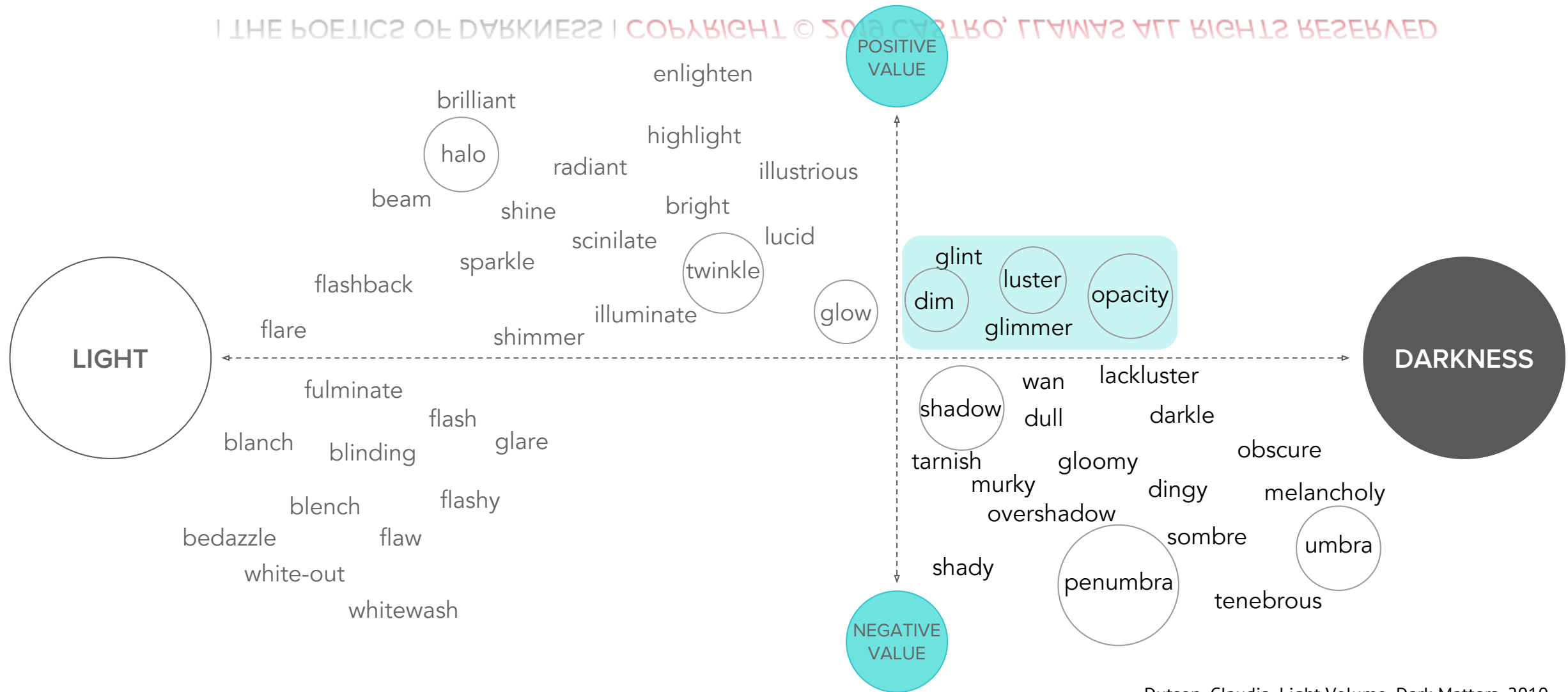
How to recover the
poetic value
of darkness
in lighting design?



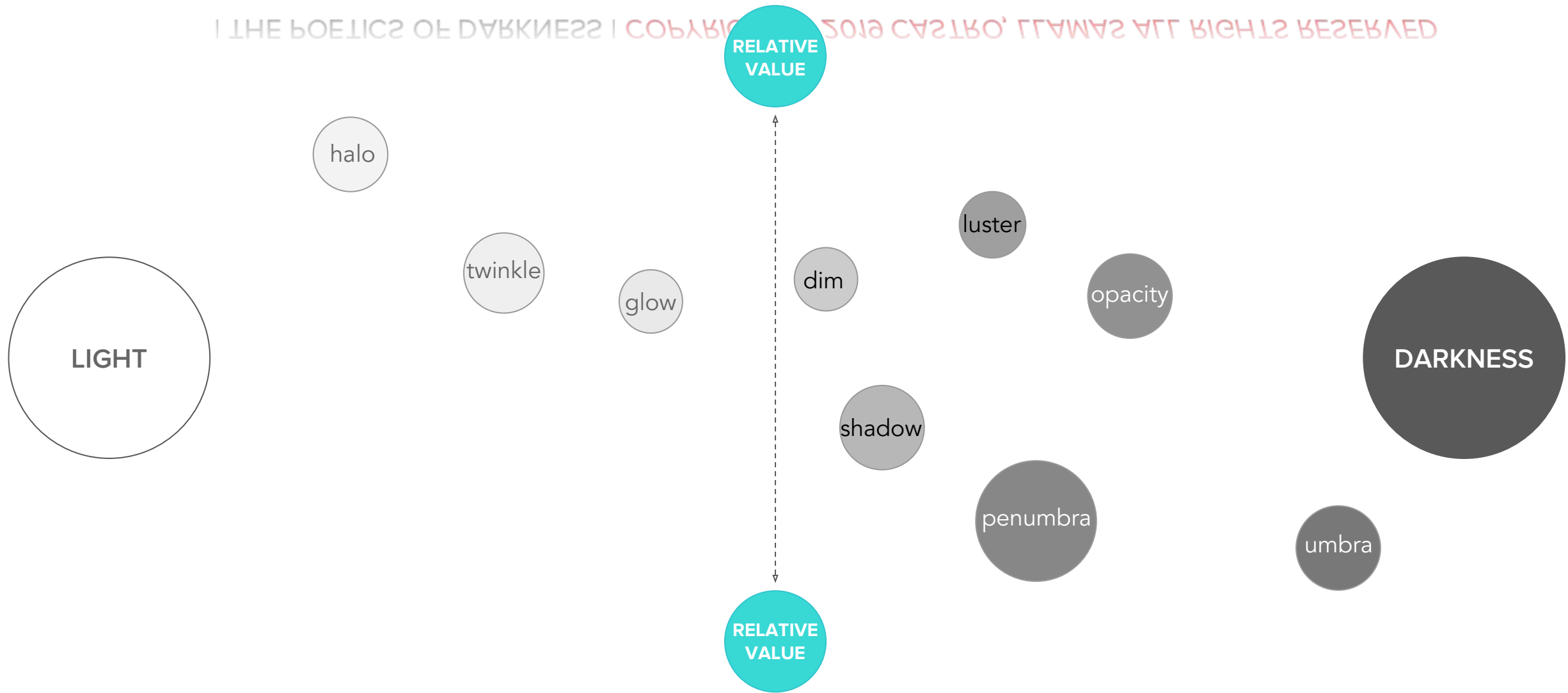


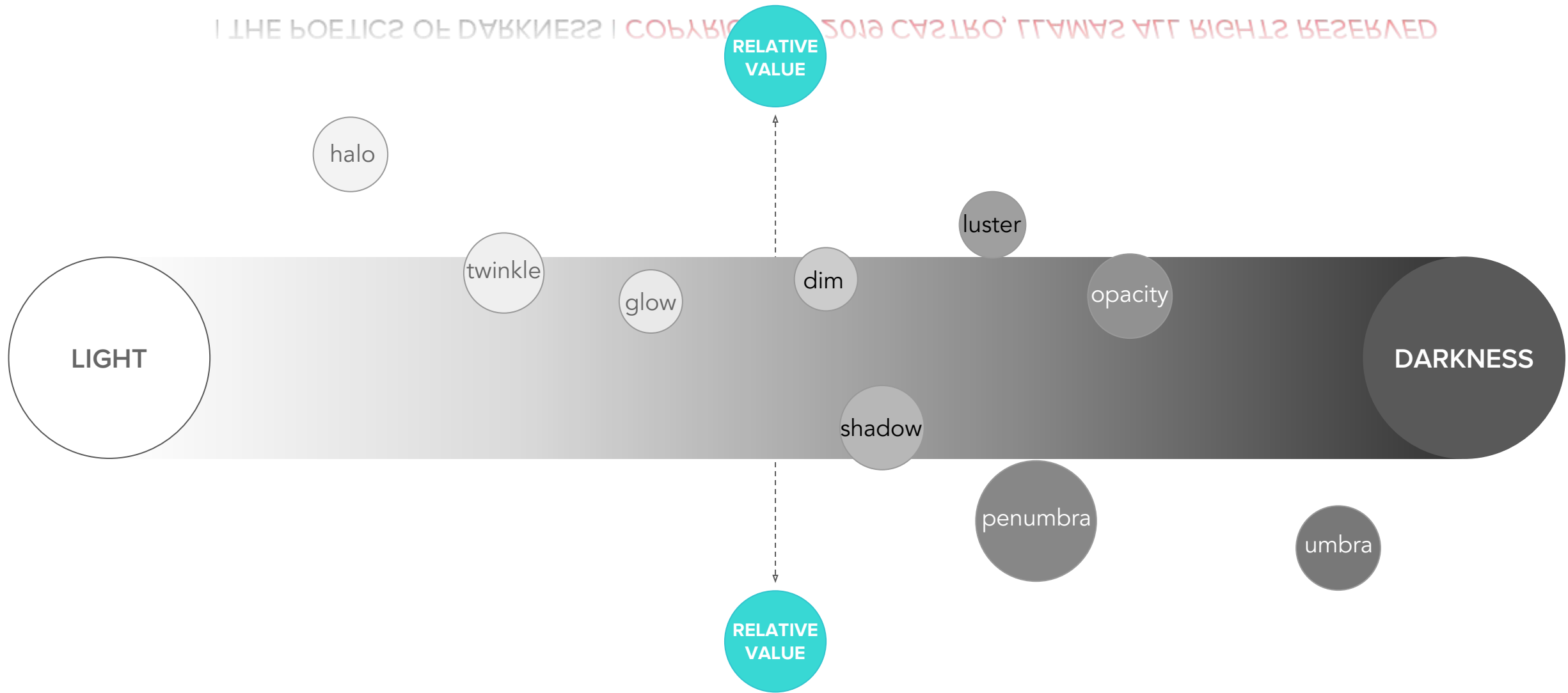
RE-CALIBRATE THE DESIGN PROCESS

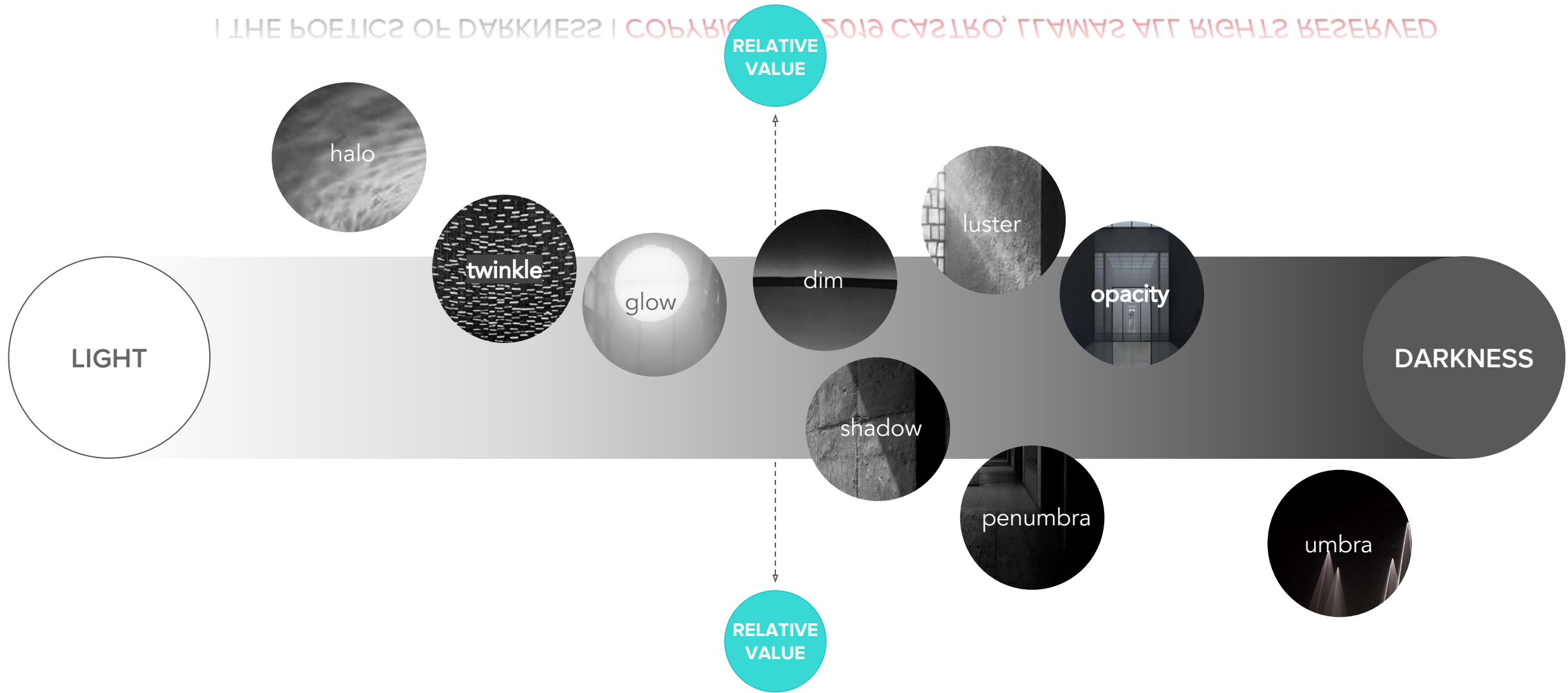




Dutson, Claudia. Light Volume, Dark Matters. 2010.

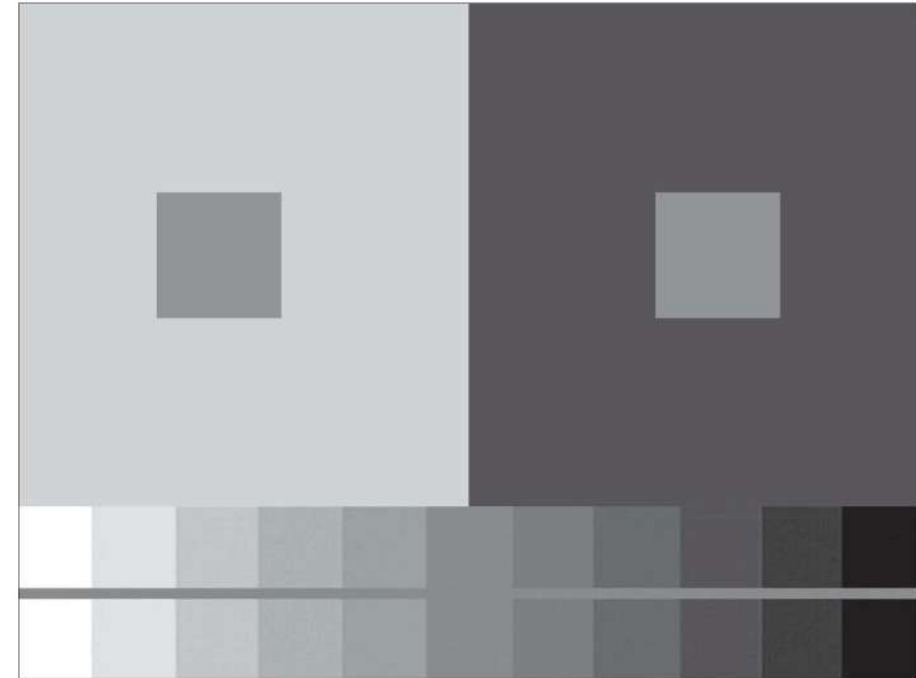






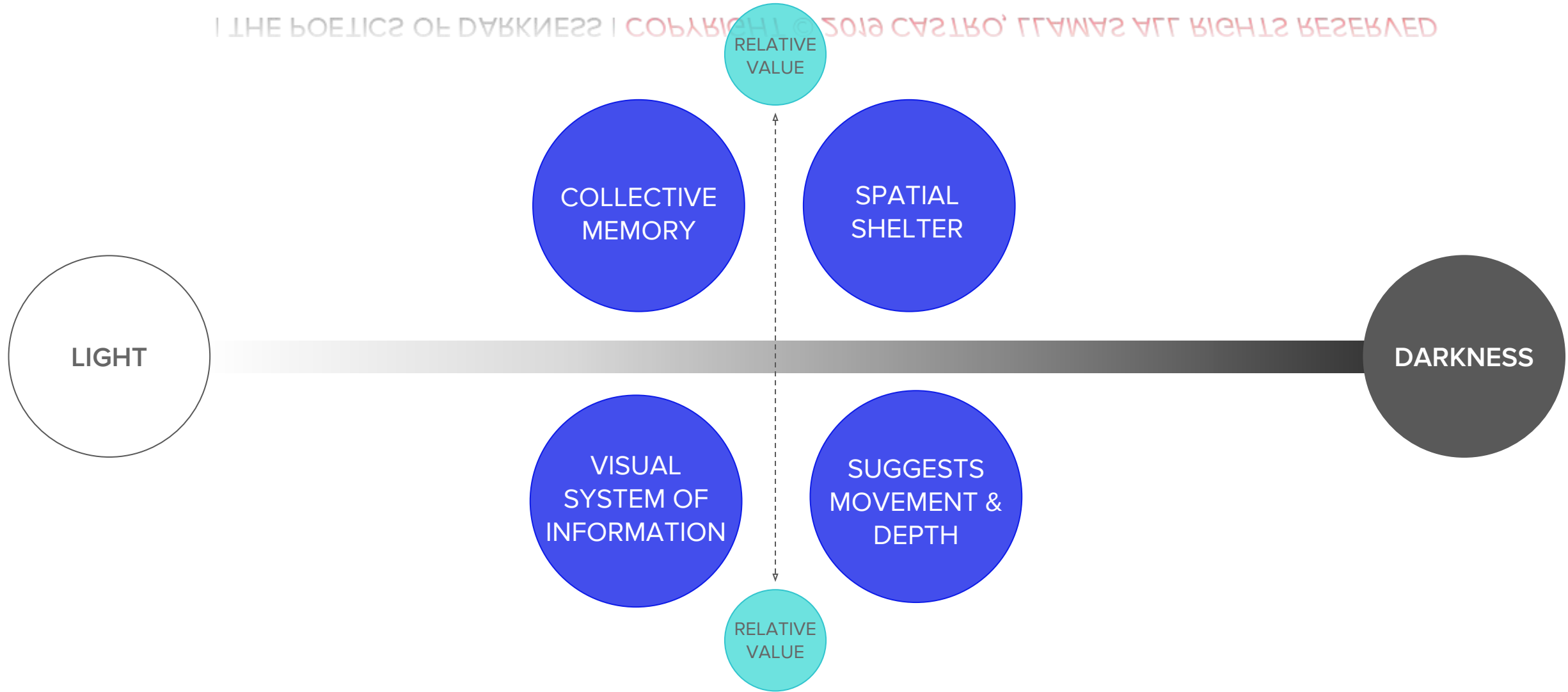
CONTRAST & FOCAL POINTS

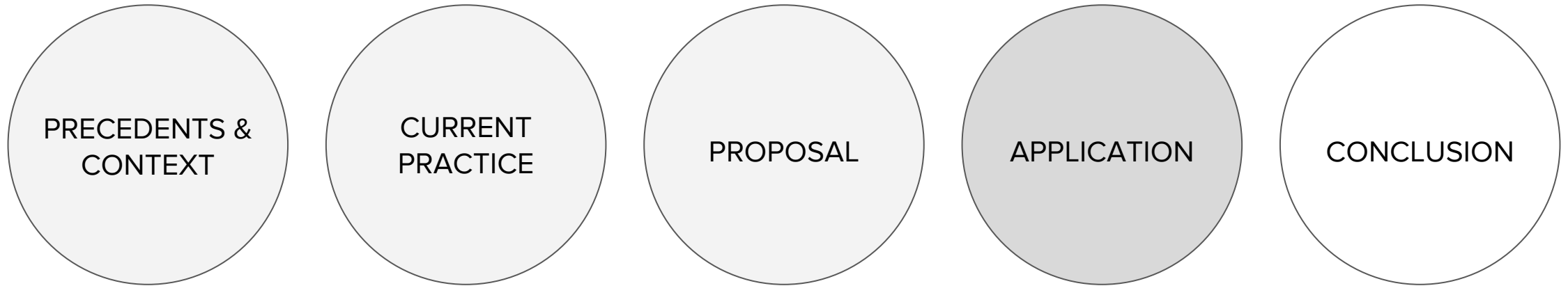
	Role	Reflectance	Illuminance Ratio
Strong	Dominant	>50%	~20:1 focal-point-to-task
		<50%	~40:1 focal-point-to-task
	Dramatic	>50%	~10:1 focal-point-to-task
		<50%	~20:1 focal-point-to-task
Moderate	Feature	>50%	~5:1 focal-point-to-task
		<50%	~10:1 focal-point-to-task
Soft	Visual Edge	>50%	~2:1 focal-point-to-task
		<50%	~5:1 focal-point-to-task
Subtle	Visual Relief	>50%	~1:1 focal-point-to-task
		<50%	~2:1 focal-point-to-task



DARKNESS AS A RELATIVE CONDITION

CONTRAST & FOCAL POINTS			EXAMPLE APPLICATIONS	
Role	Reflectance	Illuminance Ratio		
Strong	Dominant	>50%	~20:1 focal-point-to-task	House of Worship
		<50%	~40:1 focal-point-to-task	Retail
	Dramatic	>50%	~10:1 focal-point-to-task	Corporate & Hospitality Lobbies
		<50%	~20:1 focal-point-to-task	Retail
Moderate	Feature	>50%	~5:1 focal-point-to-task	Hospitality
		<50%	~10:1 focal-point-to-task	Retail Transition Spaces
Soft	Visual Edge	>50%	~2:1 focal-point-to-task	Conference rooms
		<50%	~5:1 focal-point-to-task	Residential Reception
Subtle	Visual Relief	>50%	~1:1 focal-point-to-task	Office
		<50%	~2:1 focal-point-to-task	Residential

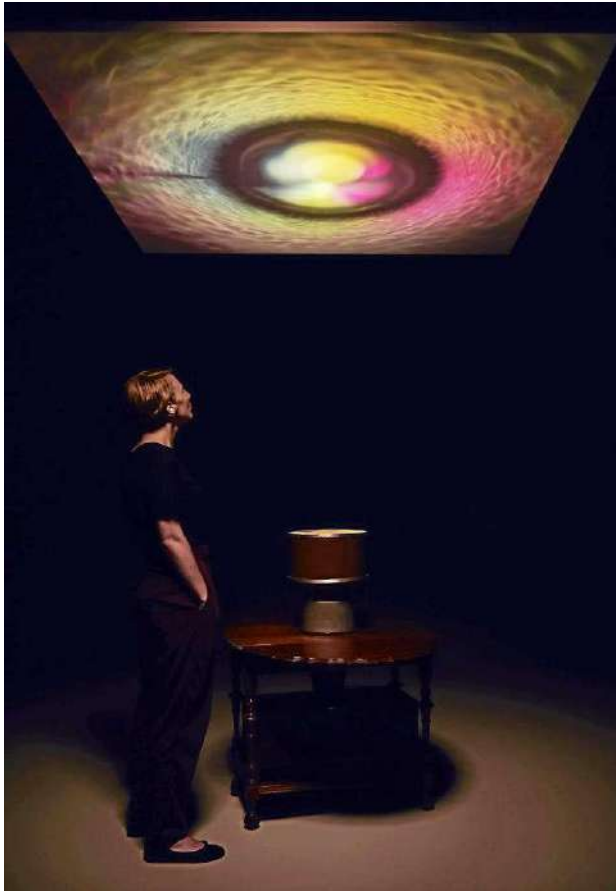






COLLECTIVE
MEMORY

- 1) Link to the past
- 2) Warm light, fragile, flickering
- 3) Domesticity, nostalgia



DARKNESS AS
BACKGROUND

Clavilux | Thomas Wilfred | 1930

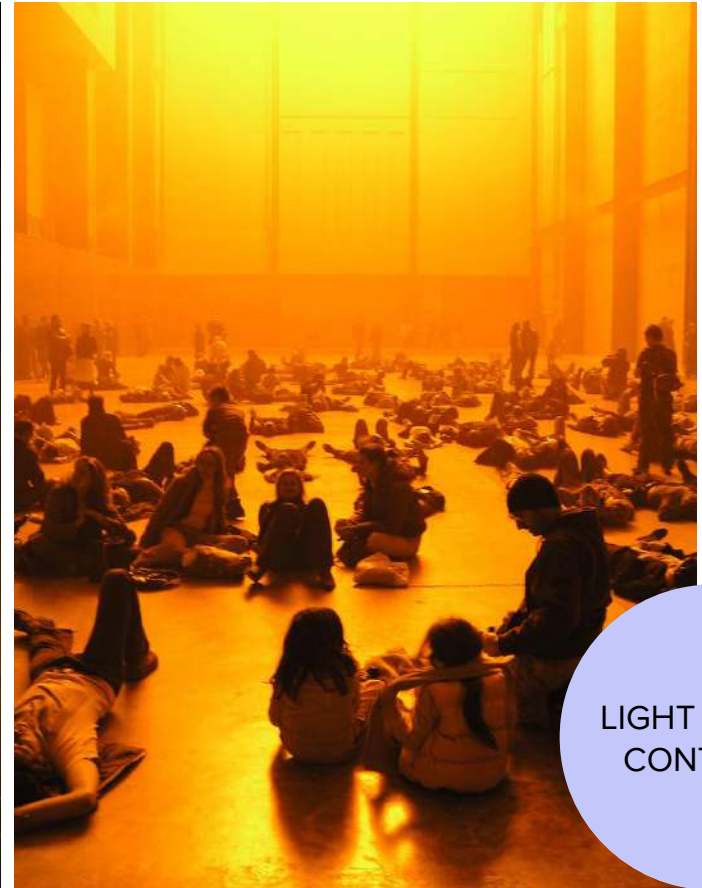
color & movement - flame of fire - experience of contemplation



LIGHT & DARK
EQUAL VALUES

Solid Light Works | Anthony Mc Call | 1973

dark & void - ethereal volumes - collective



LIGHT & DARK
CONTRAST

The Weather Project | Olafur Eliasson | 2004

warm - temporality - penumbra - collective encounter

COLLECTIVE MEMORY

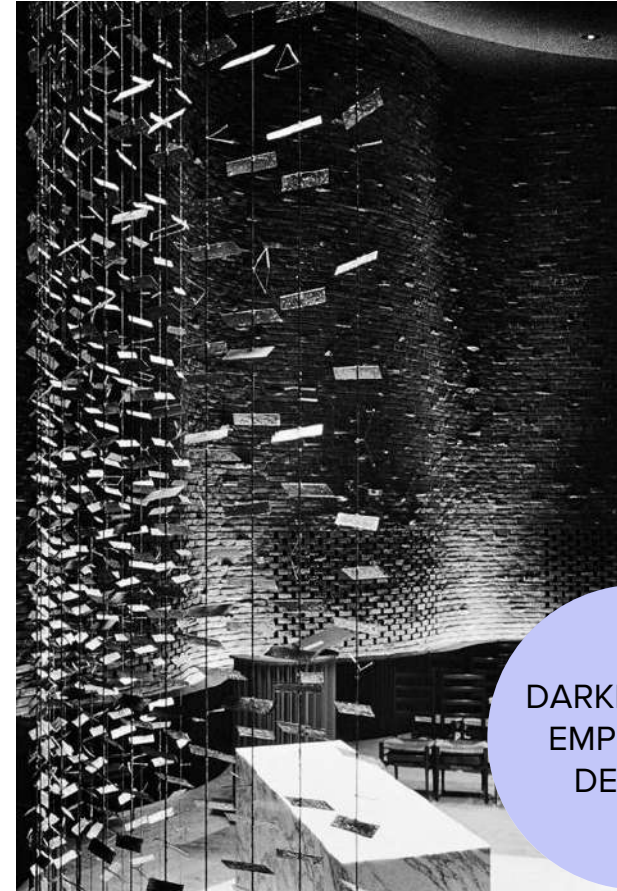
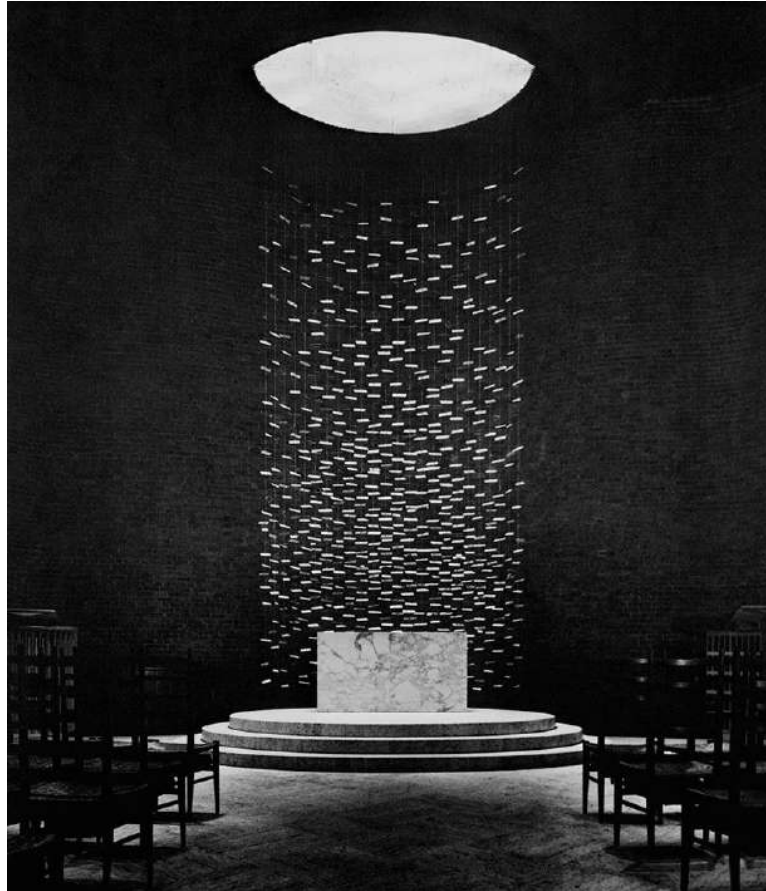


education.org



SPATIAL
SHELTER

- 1) Anonymity, privacy
- 2) Visual refuge
- 3) Calmness, serenity



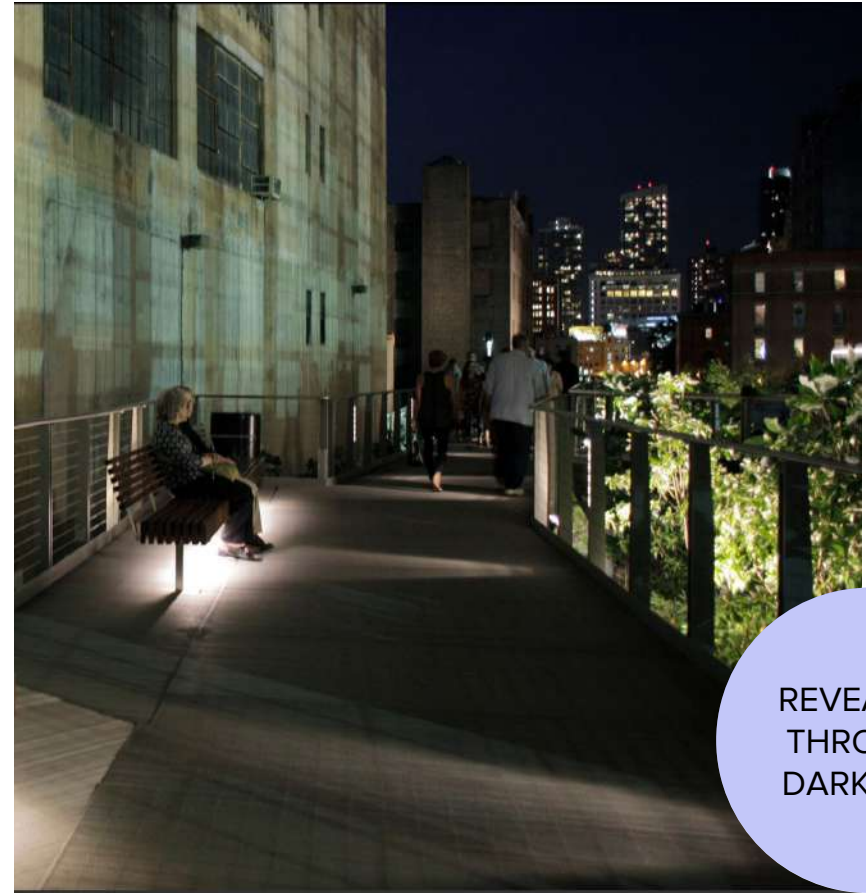
DARKNESS TO EMPHASIZE DETAILS

MIT Chapel | Eero Saarinen | 1955

gradient - highlights - spatial refuge

SPATIAL SHELTER





REVEALING
THROUGH
DARKNESS

The High Line | L'Observatoire International | 2014

low intensity - glare control - dark pockets

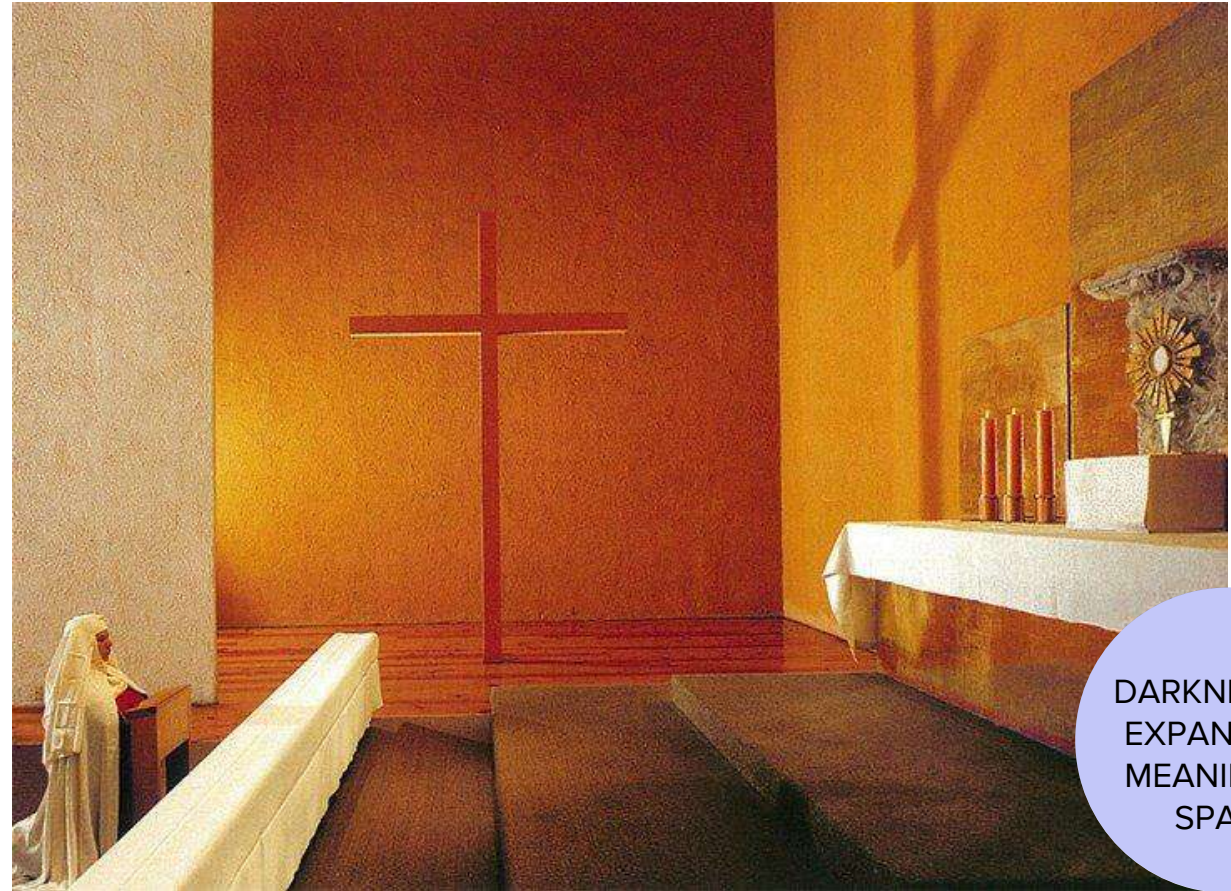
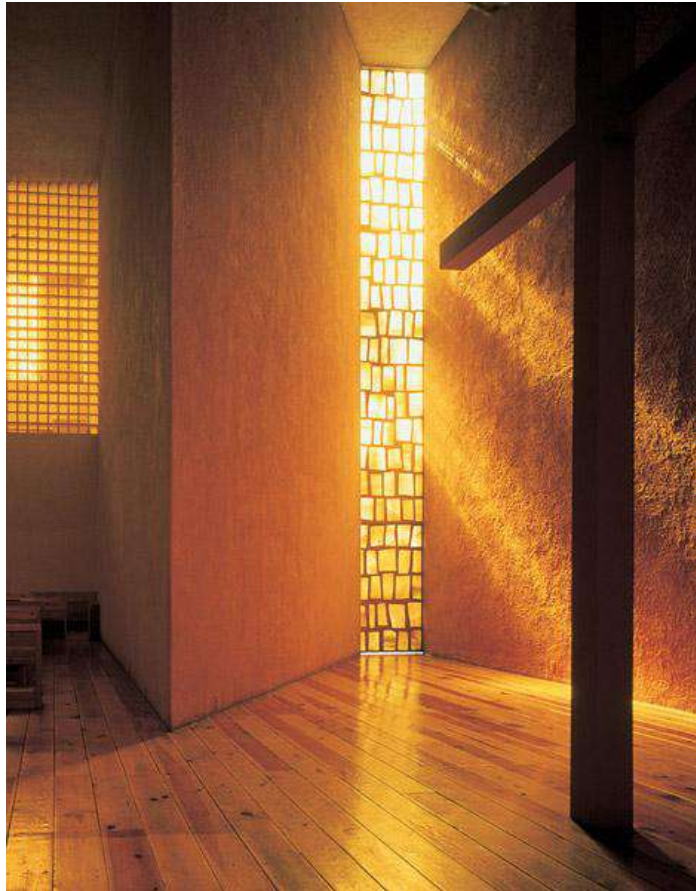
SPATIAL SHELTER





VISUAL
INFORMATION
SYSTEM

- 1) Shadows and contrast
- 2) Spatial legibility, orientation
- 3) Symbolic content



DARKNESS TO
EXPAND THE
MEANING OF
SPACE

Capuchinas Chapel | Luis Barragán | 1952

symbolic content - dynamic shadow - color & materiality



DARKNESS TO
UNDERSTAND
TEXTURE

Palais des Filateurs | Le Corbusier | 1951

contrast - intensity - materiality & tactility - temporality

SUGGESTS
MOVEMENT &
DEPTH

- 1) Spatial rhythm & flow
- 2) Alters & modifies perception
- 3) Spatial narrative



SHADOW AS
LEADING
ELEMENT

Salk Institute | Louis Kahn | 1959

dynamic perception - layers - depth

SUGGESTS MOVEMENT & DEPTH





DARKNESS TO
EXPAND THE
BOUNDARIES
OF SPACE

Chinati Foundation | Robert Irwin | 2016

transparencies - tri dimensionality - movement

SUGGESTS MOVEMENT & DEPTH





DARKNESS AS
FRAMING
ELEMENT

GM Tec Center | Richard Kelly | 1952

pure volumes - contrast - perceptual boundaries

SUGGESTS MOVEMENT & DEPTH



COLLECTIVE
MEMORY



SPATIAL
SHELTER



VISUAL SYSTEM OF
INFORMATION



SUGGESTS MOVEMENT &
DEPTH

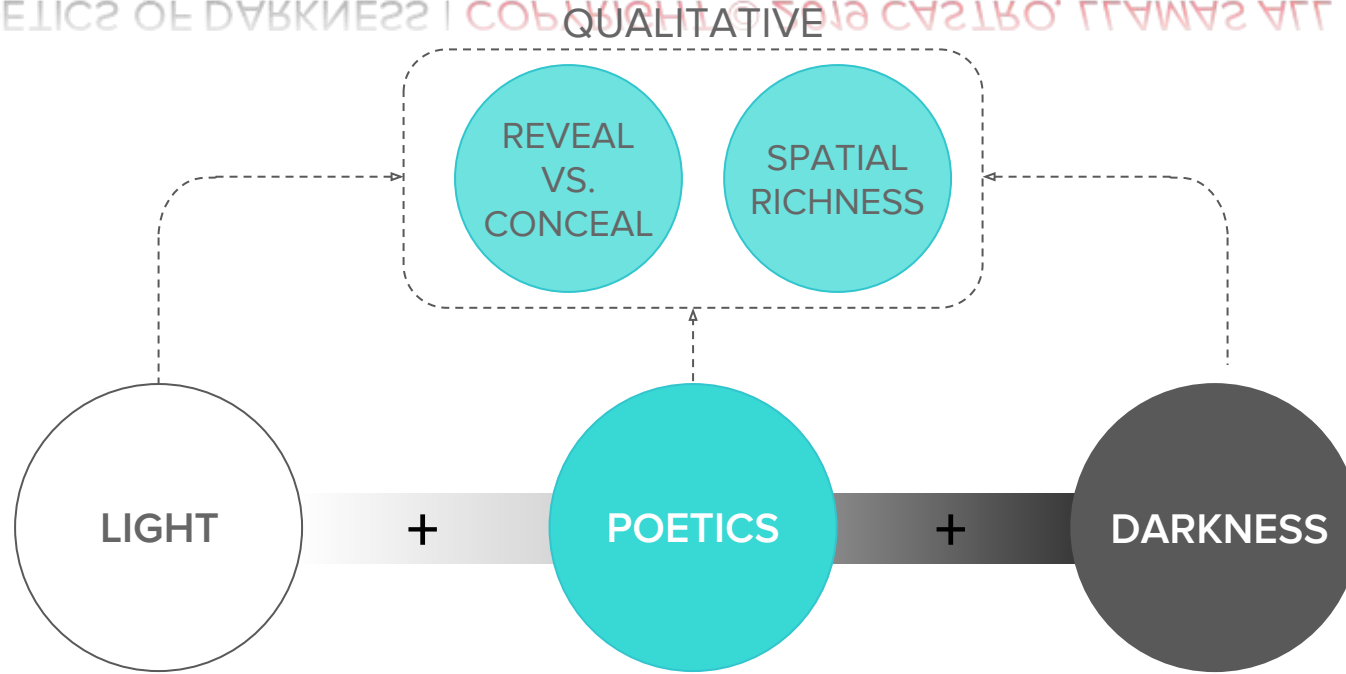


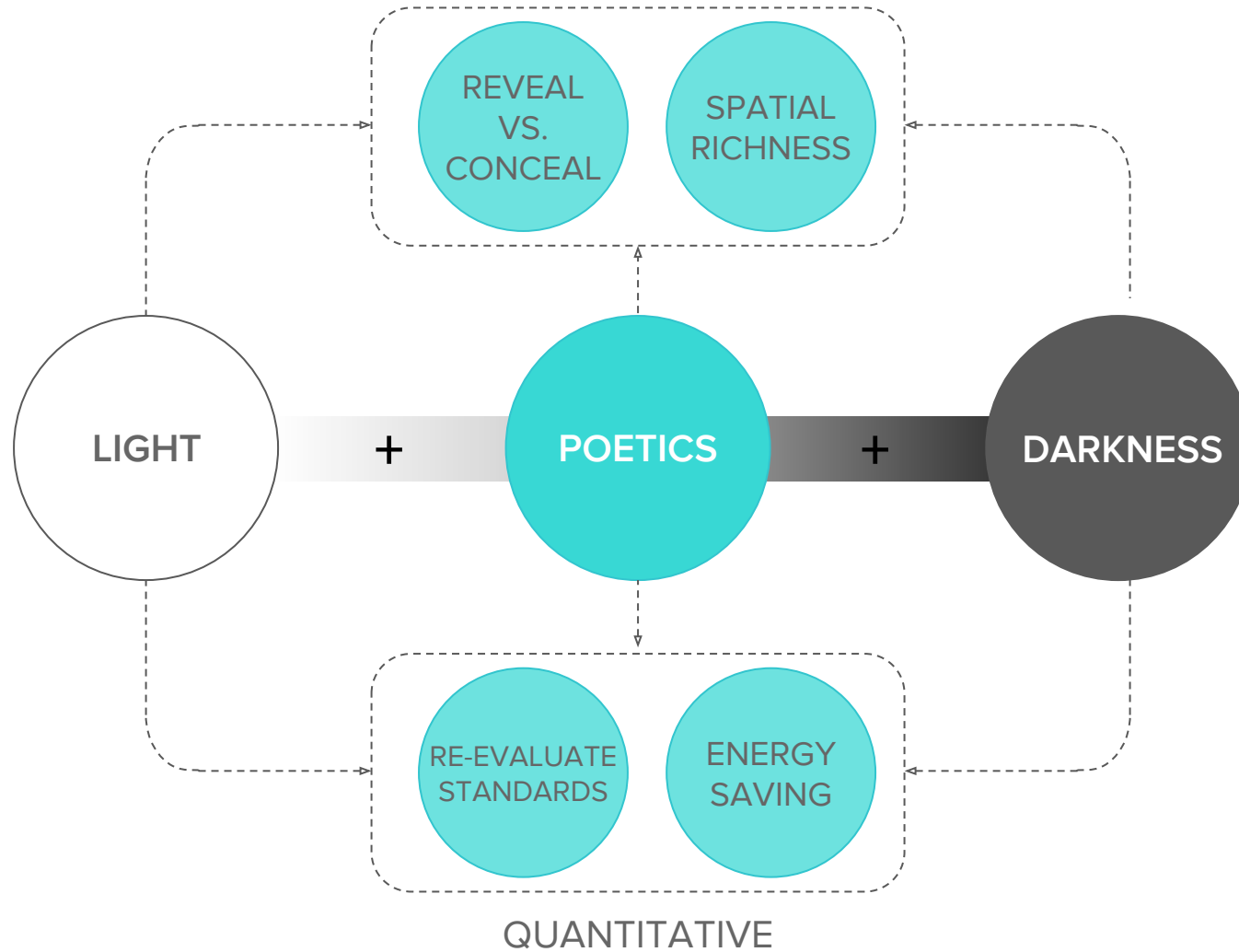
NEW RHYTHM OF PERCEPTION



Qualitative
Quantitative

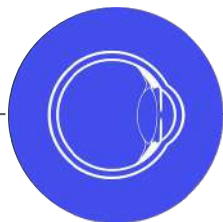








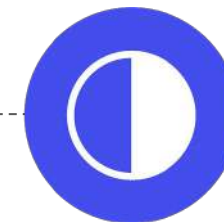
REFRAME YOUR
DARKNESS
VOCABULARY



CONSIDER EYE
ADAPTATION
THRESHOLDS



DESIGN FOR
MULTI SENSORY
APPROACH



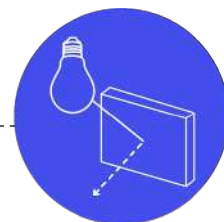
CURATE CONTRAST
RATIOS RELATED TO
SPACE TYPES



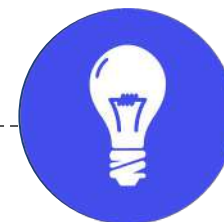
ENJOY THE
BENEFITS



BE CREATIVE



RETHINK
RECOMMENDED
LIGHT LEVELS



THINK OF
DARKNESS AS A
SPECTRUM

THANK YOU!



[leducation.org](https://www.leducation.org)

This concludes The American Institute of Architects Continuing
Education Systems Course

