

MATERIAL ACCELERATION SPEAKERS



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Walter P Moore



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*Technical Resources
Manager*
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CHRIS O'HARA

Founding Principal
Studio NYL



**MATTHEW KREILICH,
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Design Principal
Snow Kreilich Architects

MATERIAL AGENCY

The Disruptive Nature of Architectural Innovation

DISRUPTIVE TECHNOLOGY

A tool that unlocks new opportunities (Clayton Christensen)



NEW USE FOR NEW TECH

Zero energy media facade (BIPVs + LEDs)



Simone Giostra, GreenPix, Beijing, China, 2008

NEW USE FOR EXISTING TECH

Light-diffused space (polycarbonate panels)



Kengo Kuma, Oribe Tea House, Tajimi, Japan, 2005

PUSH LIMITS

An expansion of existing boundaries



Paper tubes



Steel utility tower



Shigeru Ban, Paper Tower, London, UK, 2009

ASSIMILATE

Synthesis between constituent parts



Corrugated steel



House with steel siding



Shuhei Endo, Springtecture B, Shiga, Japan, 2001

REVEAL/CONCEAL

Consideration of what is and what is not expressed



Concrete forming



Clear load paths



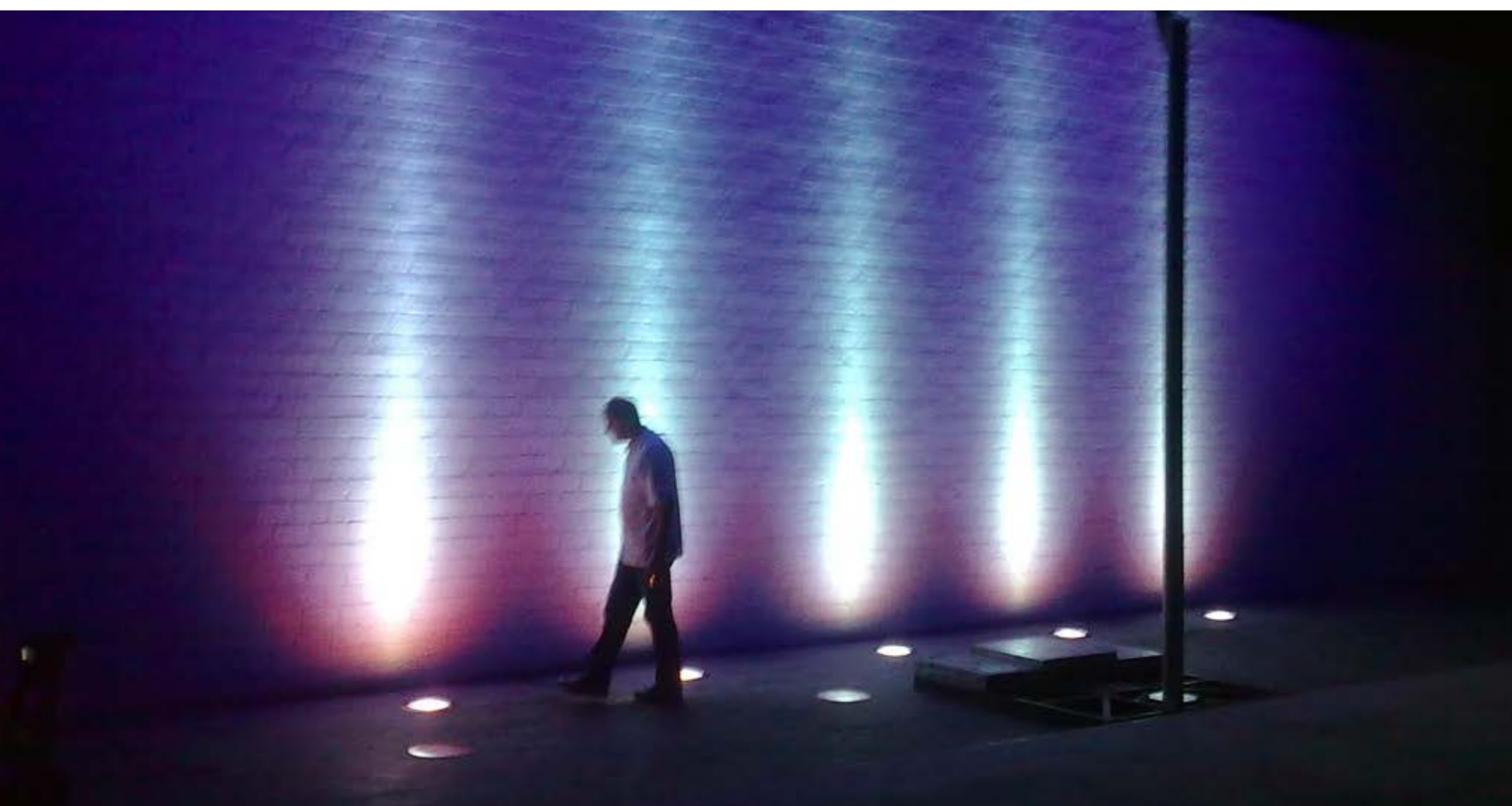
Tadao Ando, Chichu Art Museum, Naoshima, Japan, 2004

SURPRISE

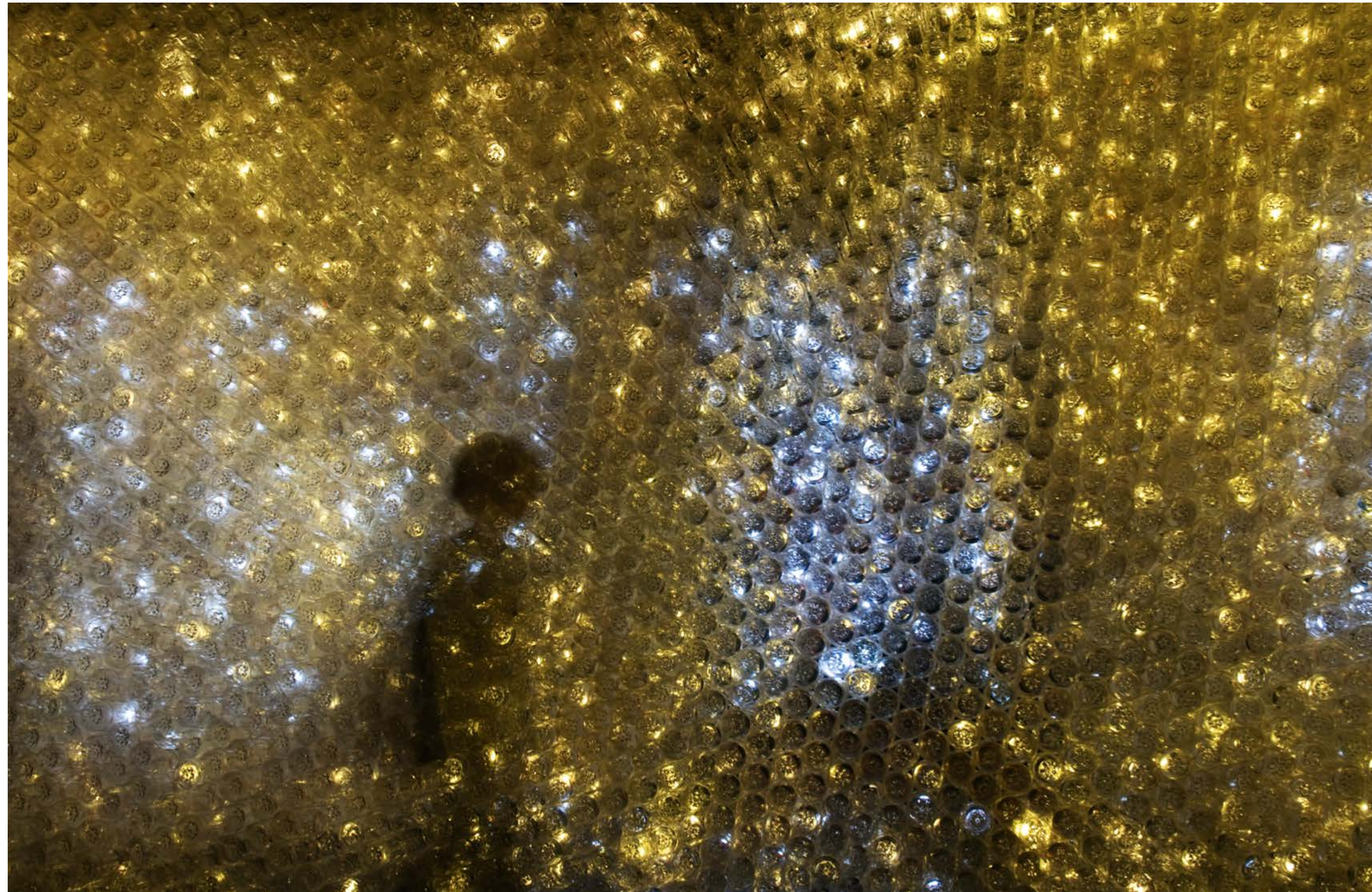
Elevating consciousness via the unexpected



PET bottles



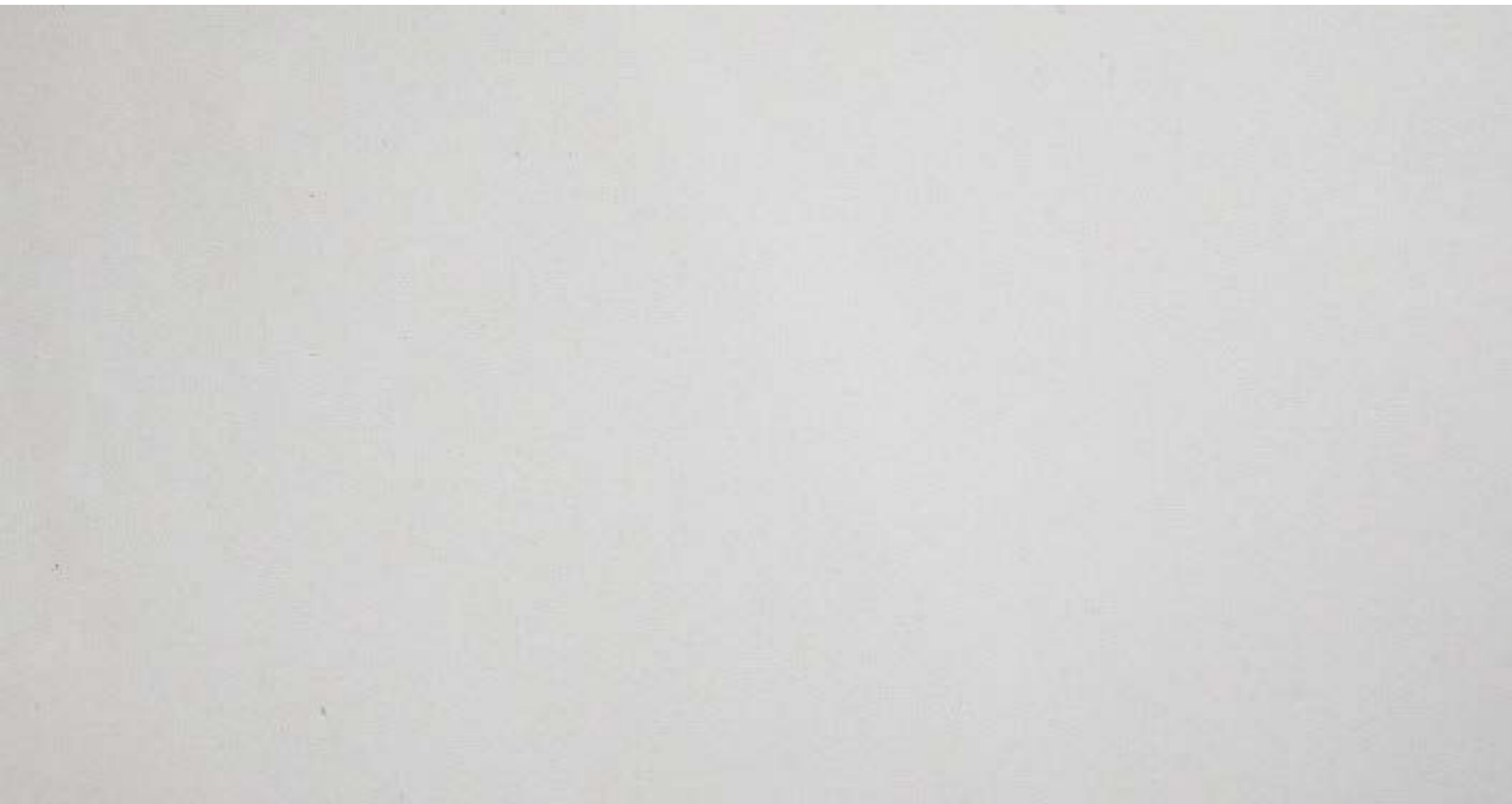
Surface illumination



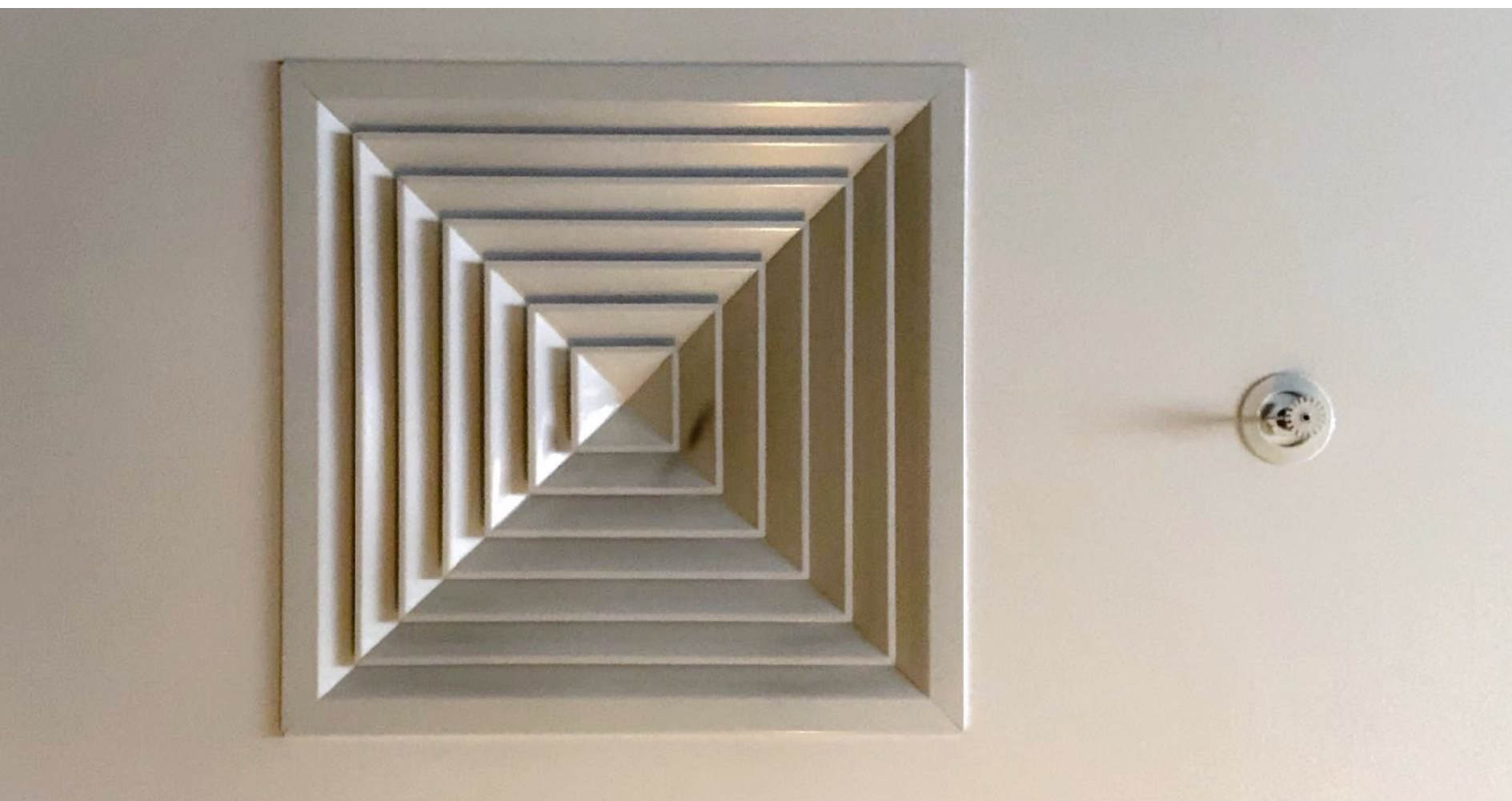
Transstudio, PET Wall, Ann Arbor, Michigan, 2008

EDIT

Eliminating unnecessary elements



White Concrete



Various surface elements



Álvaro Siza Vieira, Portuguese National Pavilion, Lisbon, Portugal, 1998

SENSORY EFFECTS

Recodification of material meaning



OPERATIONAL EFFECTS

A change in functional services



Inaba Electric Works, Eco-Curtain, Nagoya, Japan, 2005

BEHAVIORAL EFFECTS

Alteration of human behavior



Shigeru Ban, Curtain Wall House, Tokyo, Japan, 1995

CULTURAL EFFECTS

Influence on broader society



Frank Gehry, Guggenheim Museum Bilbao, Spain, 1997

ENVIRONMENTAL EFFECTS

Improving ecological health and resilience



Toyo Ito, Island City Central Park, Fukuoka, Japan, 2005



MARTIN J. AUGUSTYNIAK

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Walter P Moore

Presentation Unavailable

The background is a dark blue gradient with a complex, abstract pattern of curved lines and a grid. The lines are more prominent on the right side, creating a sense of depth and movement. The overall effect is futuristic and technical.

Material Acceleration

CLADDING WITH GLASS
ALISSA SCHMIDT, VIRACON

While glass is a traditional material, knowing what to expect from it can be a challenge.



Rendering

Reality?



Reality?



Reality?



***To overcome challenges—learn more,
manage expectations and find new
ways to use glass.***



Learning more means understanding common glass misperceptions.



I want clear glass because it will give me a white appearance



Clear glass often looks dark due to low reflectivity



Manage expectations by explaining the nuances of glass.

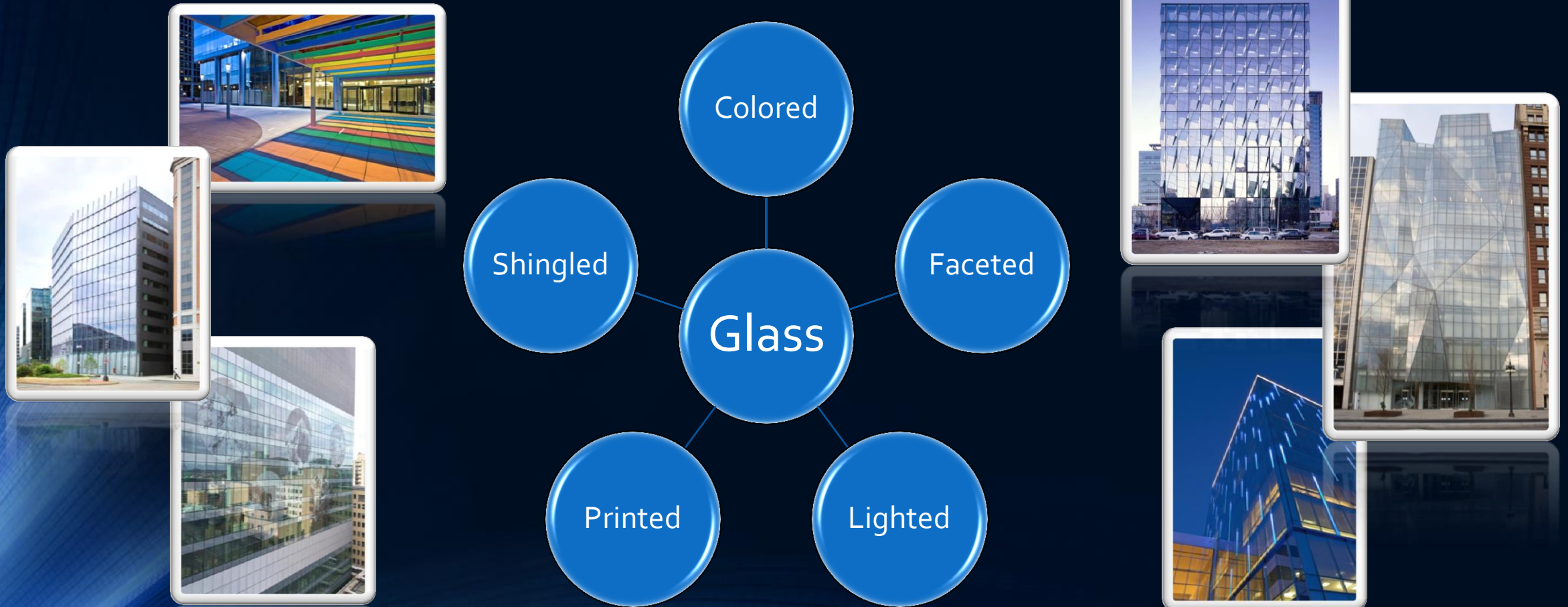


Overhang Reflection

No Interior Treatment

White Interior Treatment

The nuances lead to exciting and innovative glass applications.



"...glass panels don't need to be rectangles ... It's like origami; something that's folded is more interesting"
- Mark Sexton



- Low Iron Glass + Clear Low-E + Silk-screen
- 726 pieces, 556 different shapes
- Typical Unit Size 4'-4" x 7'-0"



Spertus Institute
Chicago, IL

Neighboring buildings were unknown, textured surfaces fragment any given contextual surroundings into a kaleidoscope of infinite pixels

- Barkow Leibinger Architects



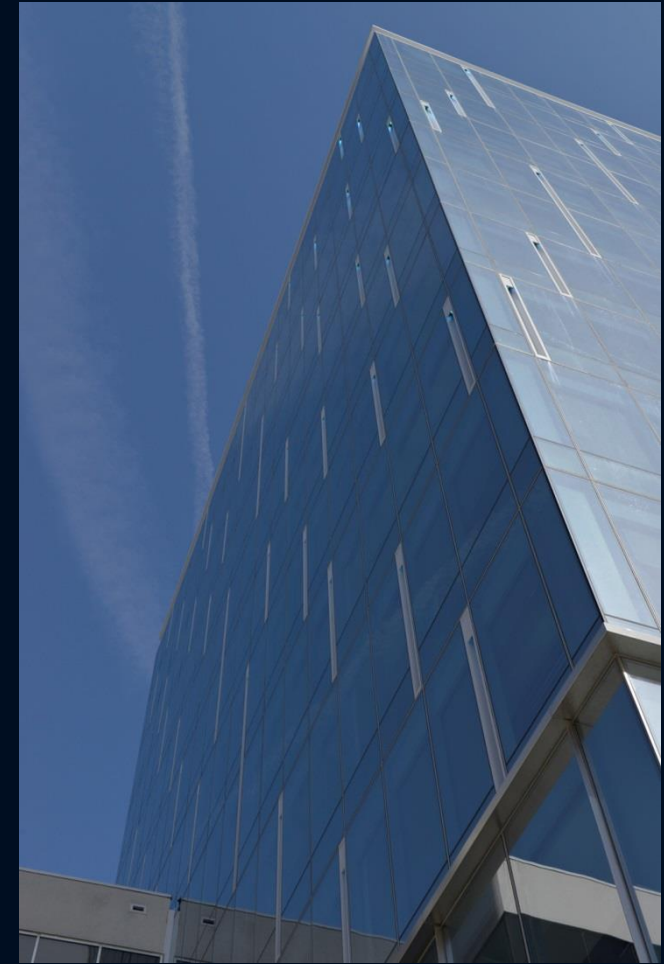
- Clear Glass + Radiant Low-E
- 80,000 square feet of glass



Trutec Headquarters
Seoul, South Korea



1099 NY Avenue
Washington DC



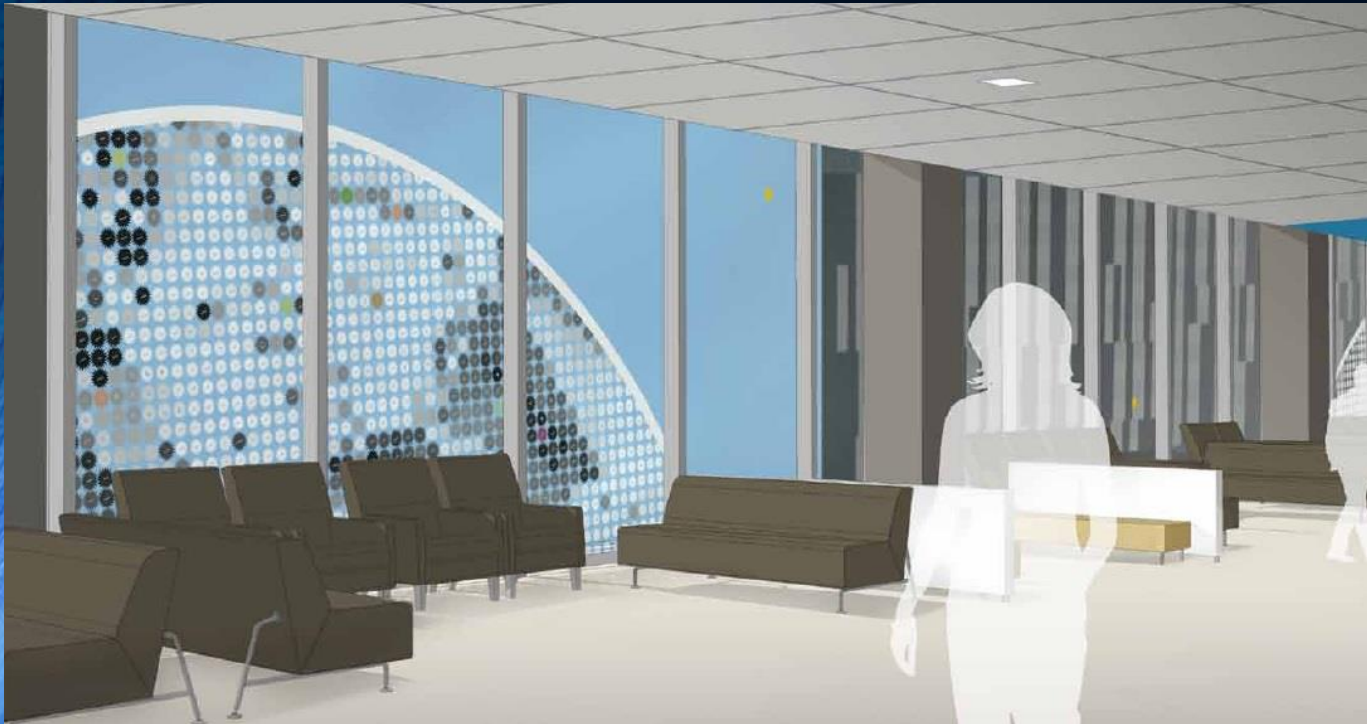
Silverline Center
McLean, VA



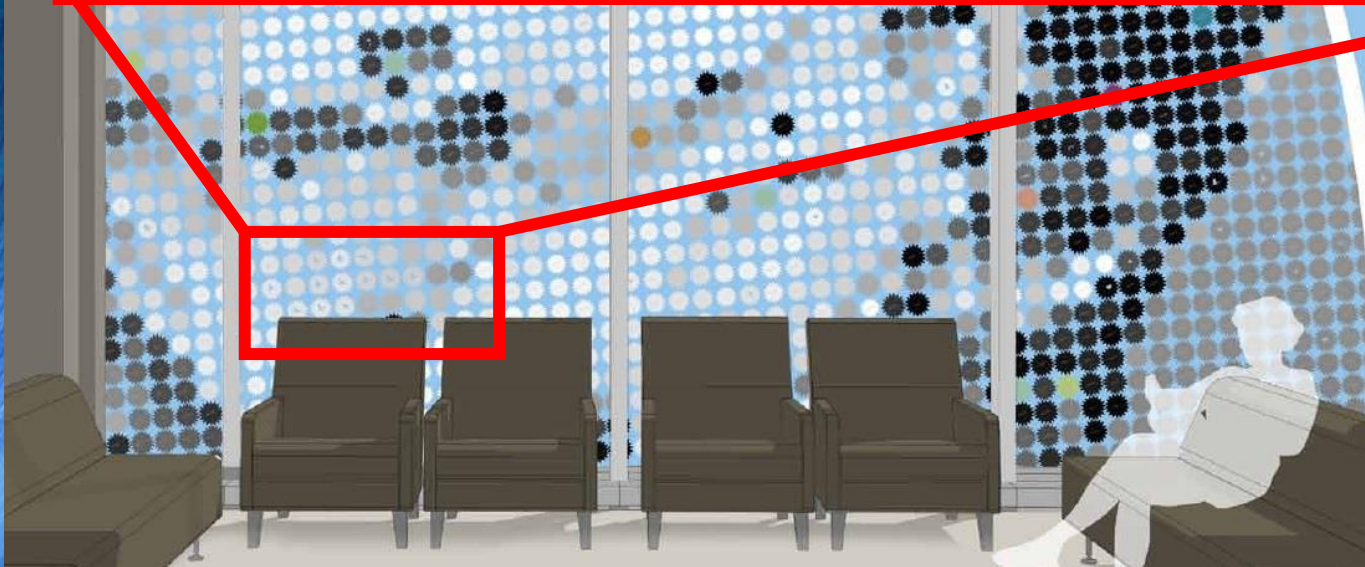
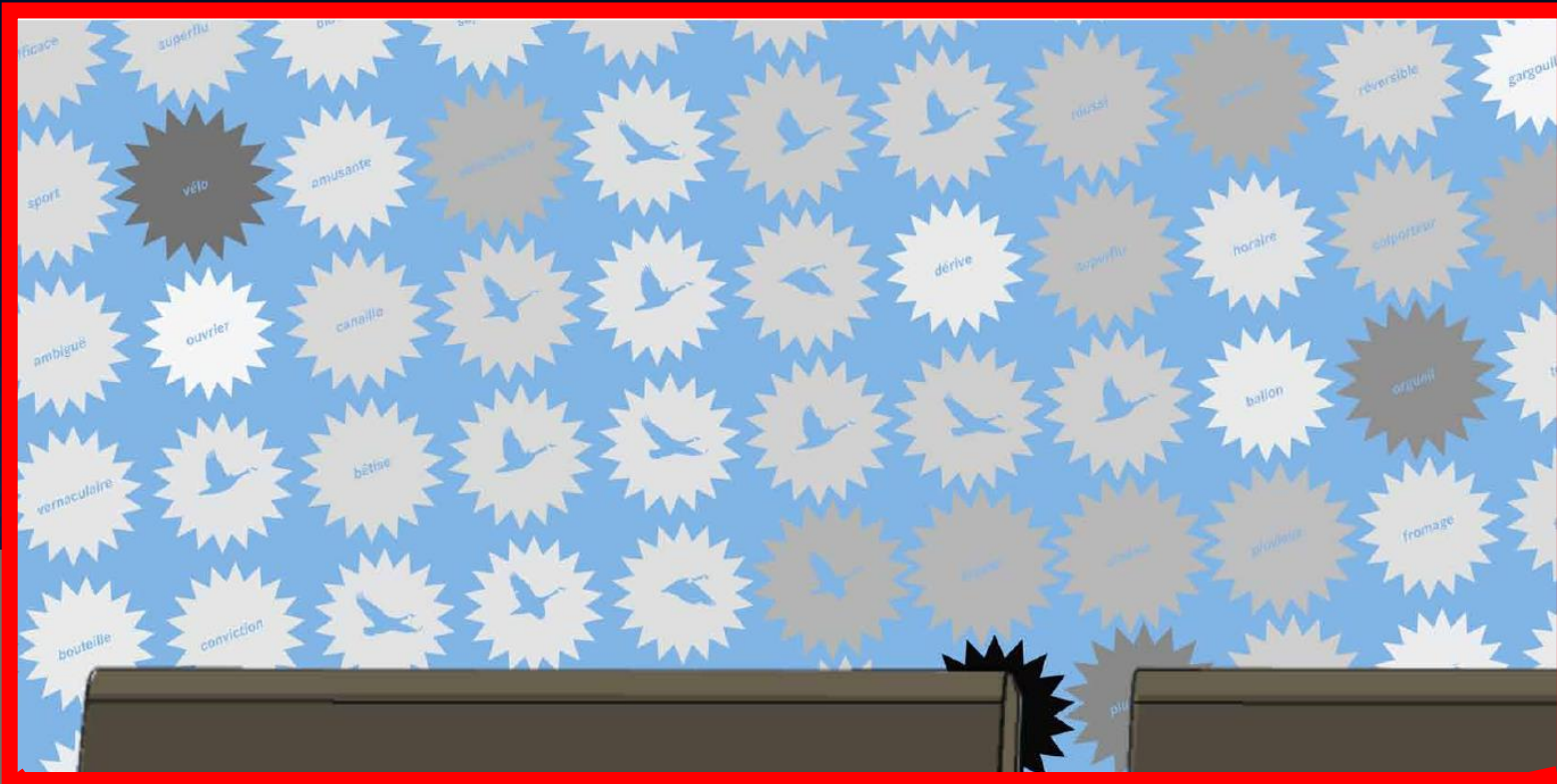
Centene Center
Clayton, MO



University Hospital (CHUM)
Montreal, Quebec



University Hospital (CHUM)
Montreal, Quebec



University Hospital (CHUM)
Montréal, Québec

CONCLUDING THOUGHTS

- Glass isn't just a material meant to be looked through, it can contribute to the form and functionality of a façade.
- The more you know about it, the more innovative you can be with it.

Thank You!

Alissa Schmidt
aschmidt@viracon.com





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