

# Building Passion For Passive



A More Expansive View of Building "Performance"

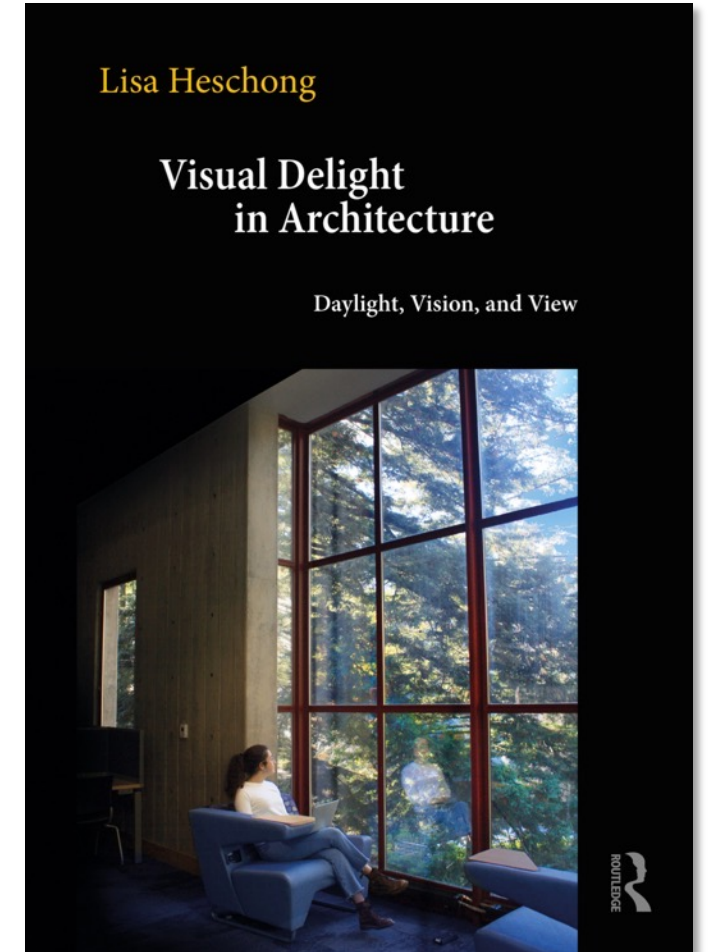
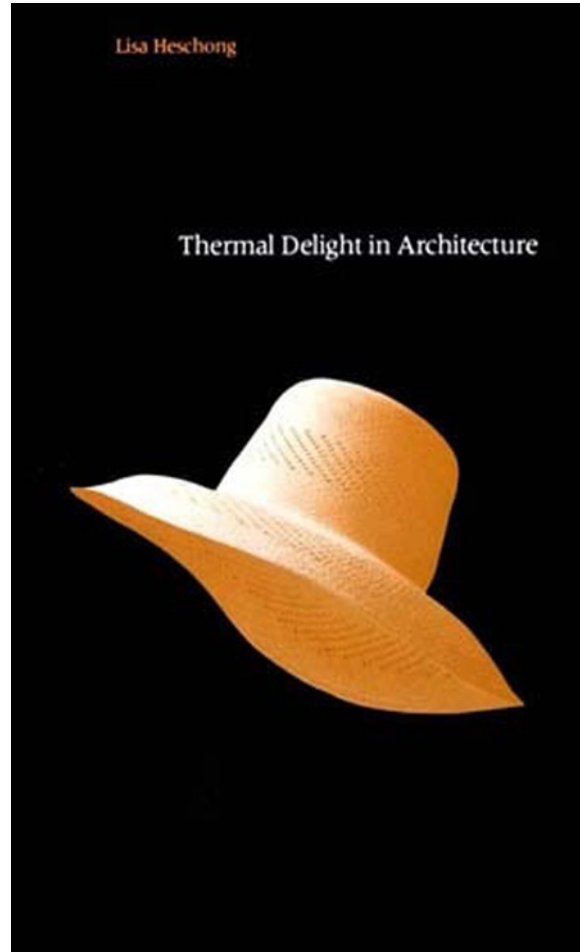
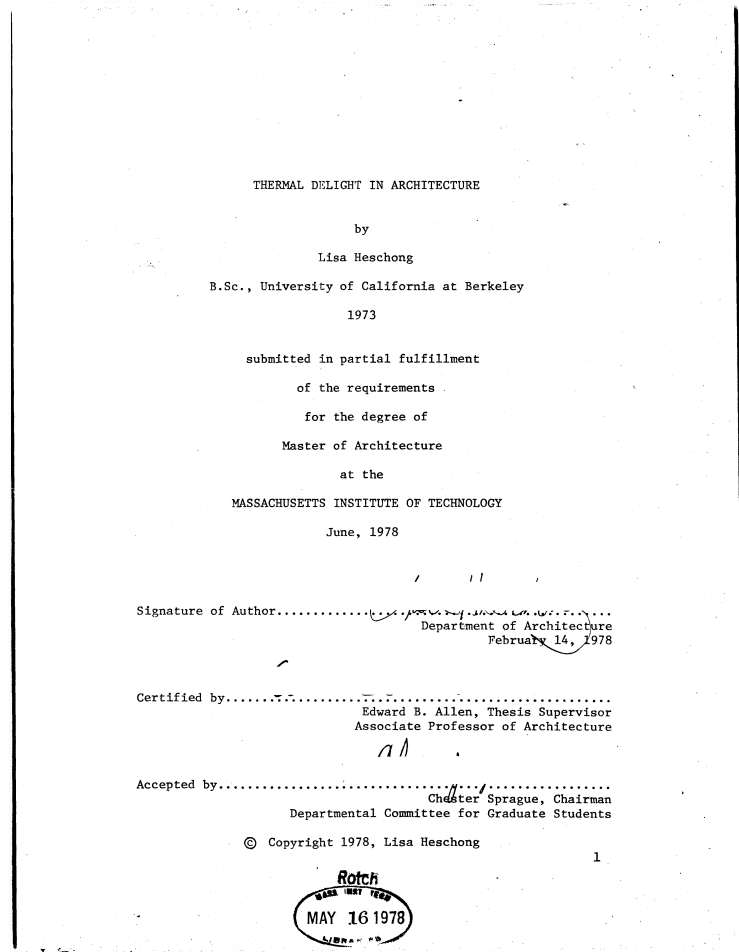
# PHIUSCon 2022

Chicago, IL, October 27, 2022

ESSENTIAL  
HABITAT  
ARCHITECTURE



# Thank You, Lisa Heschong



# 1<sup>ST</sup> PASSIVE HOUSE TRAINING IN US URBANA, IL, 2008





[home](#) [about](#) [press](#) [passive house](#) [contact](#) [links](#)

# (2008 WEBSITE INTRO)



# (2008 WEBSITE INTRO)

the passive house standard



has redefined quality construction

# (2008 WEBSITE INTRO)

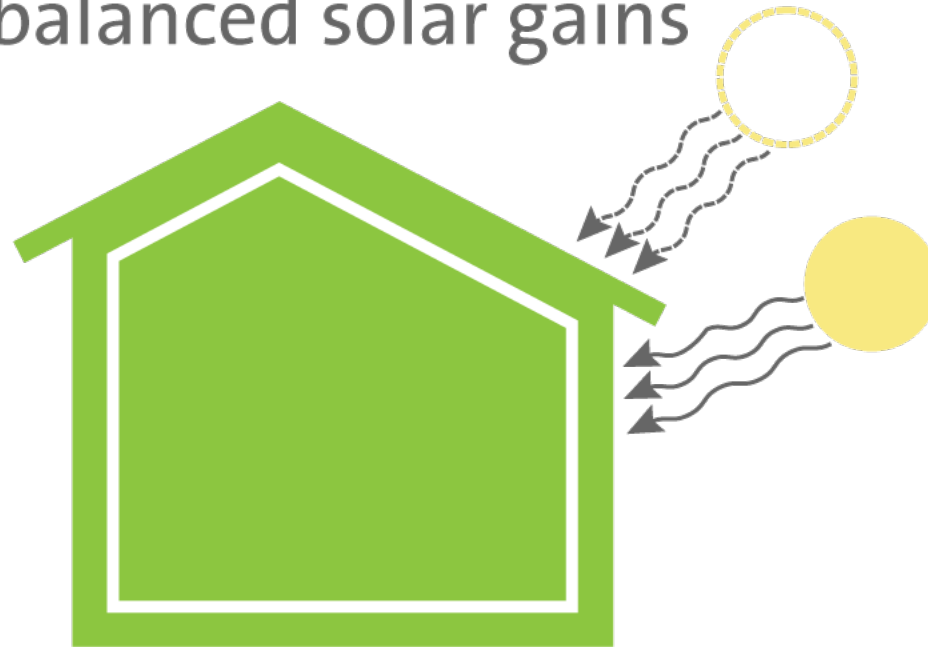
a super-insulated, airtight shell



for comfort, performance & durability

# (2008 WEBSITE INTRO)

balanced solar gains



for all-season comfort & economy

# (2008 WEBSITE INTRO)

a “fresh air furnace”



for heat recycling & superior air quality



# (2008 WEBSITE INTRO)

efficient appliances & lighting



for unmatched efficacy & convenience

# (2008 WEBSITE INTRO)

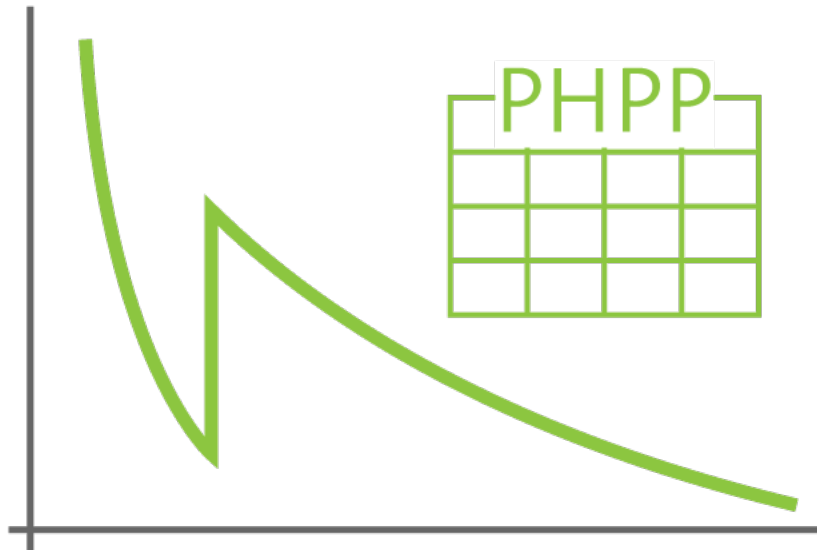
renewable energy systems



for utility savings & carbon reduction

# (2008 WEBSITE INTRO)

precise & proven analysis



for cost-optimized efficiency

# (2008 WEBSITE INTRO)

an outstanding track record



20+ years, 20,000+ buildings worldwide

# (2008 WEBSITE INTRO)

sustainability consulting

zero energy buildings

passive house design

# EH Arch Projects 2008-2022

## CALIFORNIA

- **Population: 39,995,077 (~12% of US)**
- **Households: 11,502,870**
- **GSP: \$3.4 trillion (5<sup>th</sup> in world)**



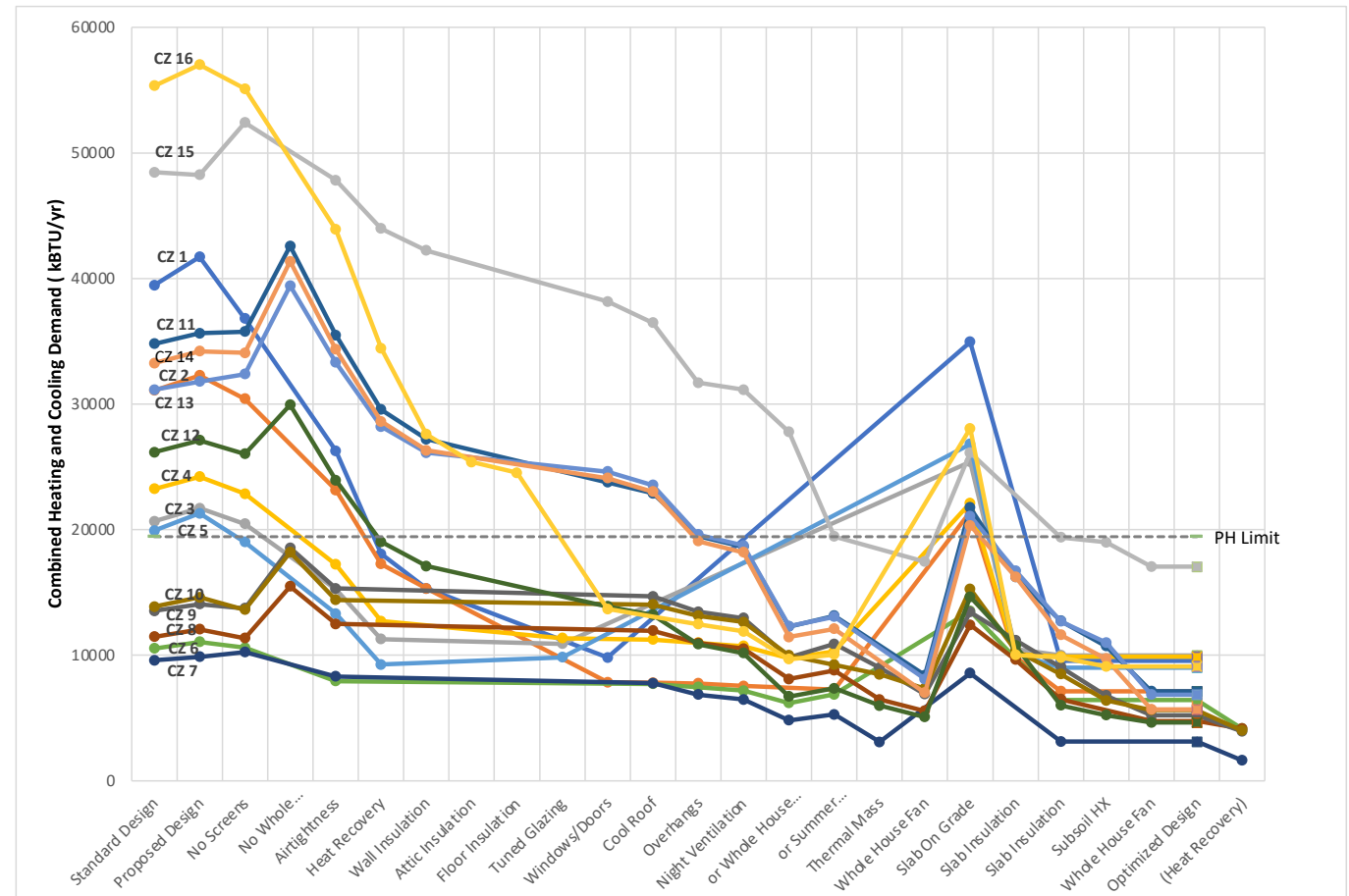
# Passive Building Just Makes Sense!



## World's Highest Standards for:

- Health
- Comfort
- Quiet
- Efficiency

## Results: CA Code → Passive House



# People Choose with Emotion & Justify with Logic



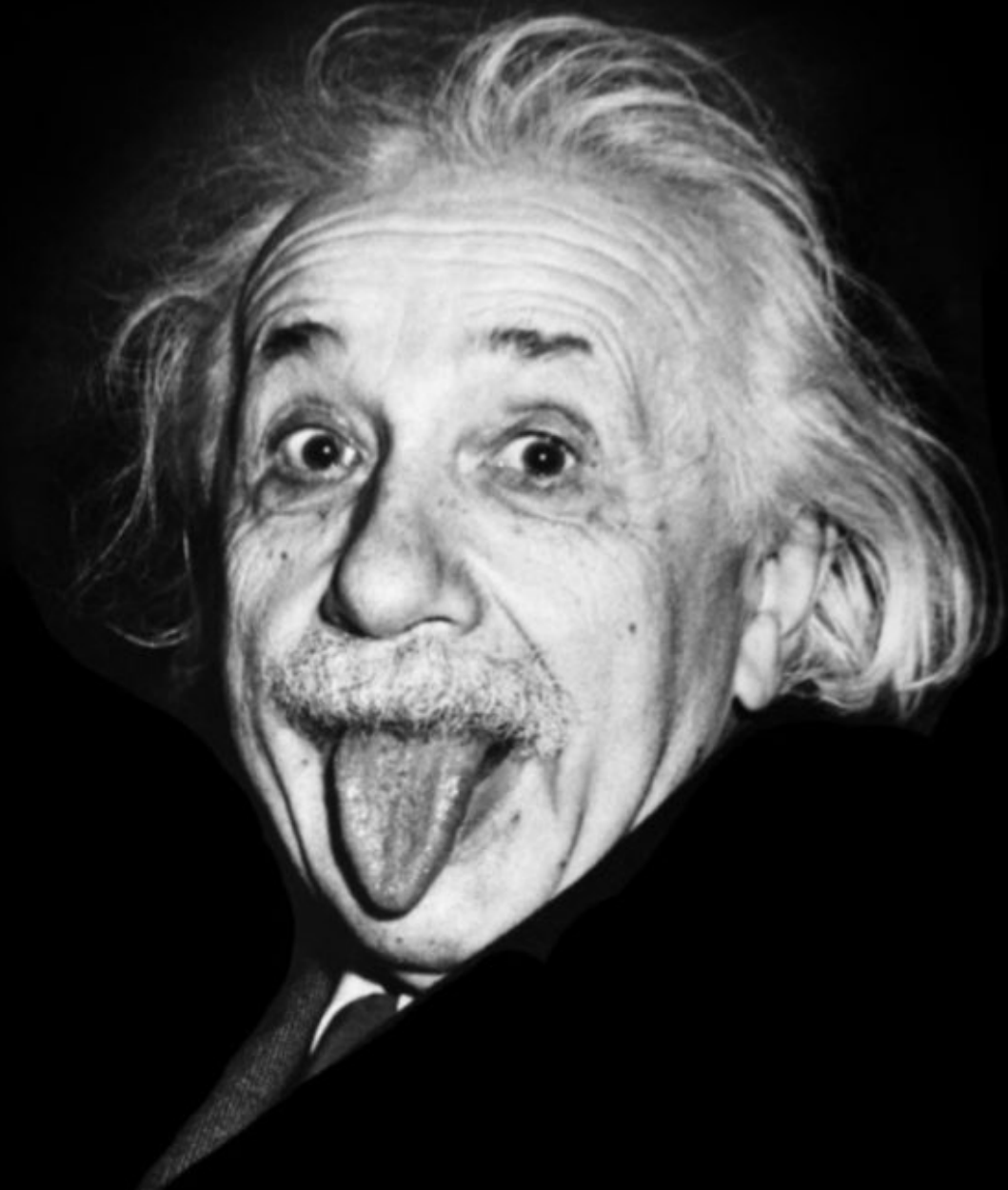


# The “Logic Trap”

A close-up photograph of Spock from Star Trek: The Motion Pictures. He is wearing his signature blue uniform and has a serious, intense expression. His right hand is raised in a Vulcan salute, with fingers spread and palm facing forward. The background is a solid, vibrant red color.

**Being passionate about something sensible doesn't make you rational.**

**Let's Use Science to be Less Rational!**

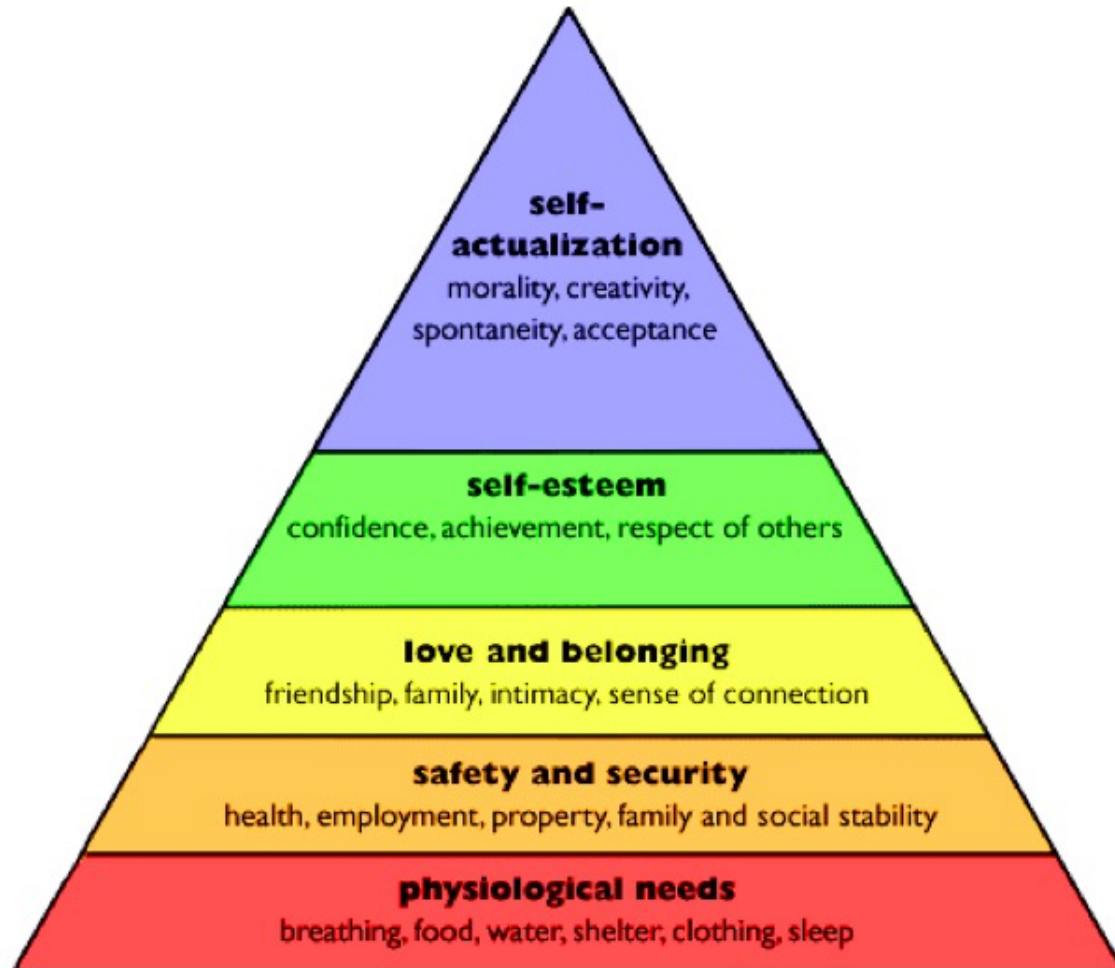


# Selling “Green” ~ Kids & Veggies



**Sell them what they WANT and then  
give them what they NEED.**

# What do People Want?



**JOY**  
↑  
**PLEASURE**  
↑  
**COMFORT**

# Joy



**...is Not the Mere Absence of Misery**

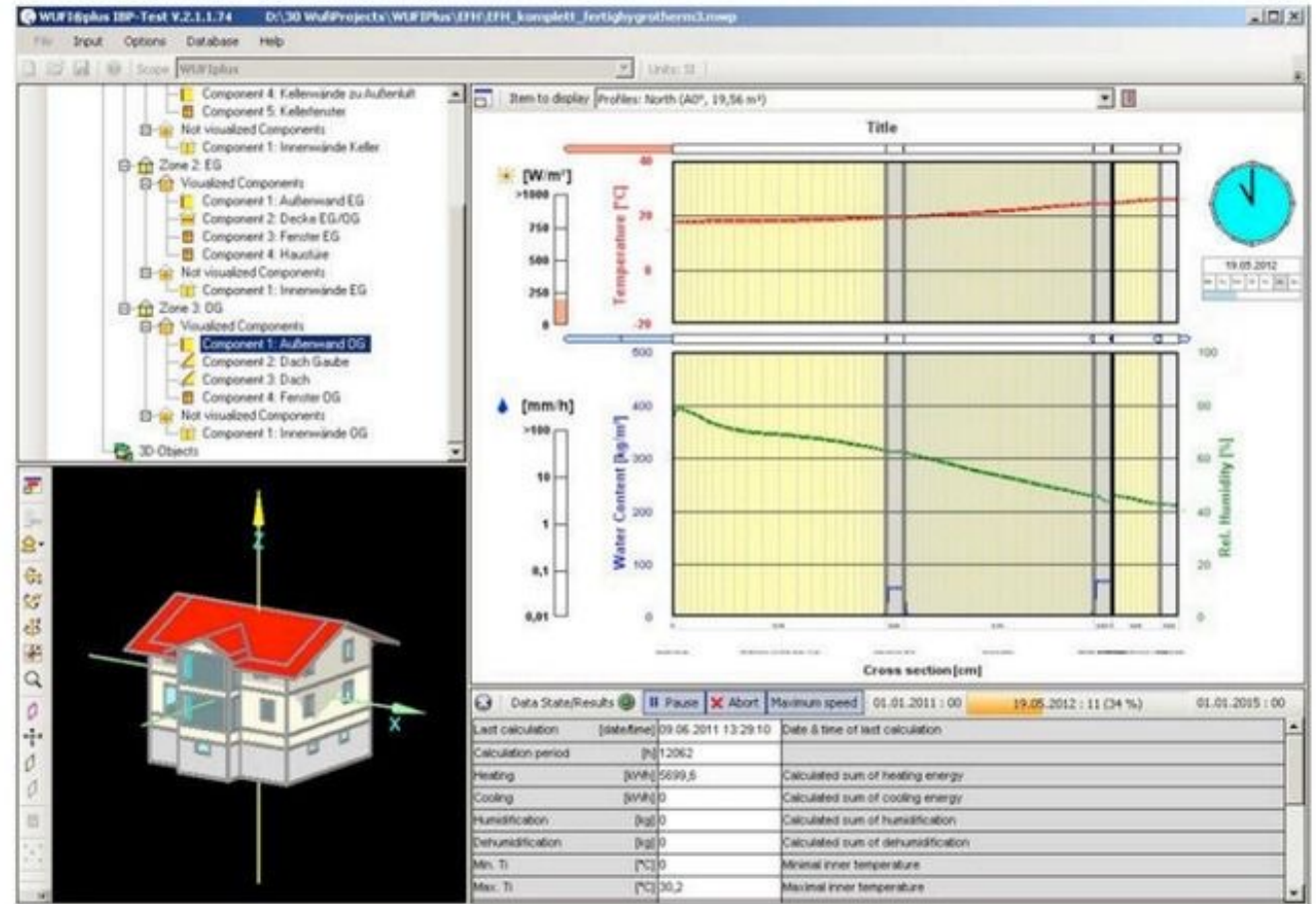
# What Brings People Joy?



- Gratitude, Flexibility, Curiosity
- Connection with Other People – Caring & Being Cared For
- Being Seen
- Sense of Purpose – Goals Aligned with Values
- Experiences vs. “Stuff”
- Agency
- Hope

# Is Building Performance Evocative?

- **Comfort**
- **IAQ**
- **Lighting**
- **Acoustics**
- **Efficiency**
- **Durability**



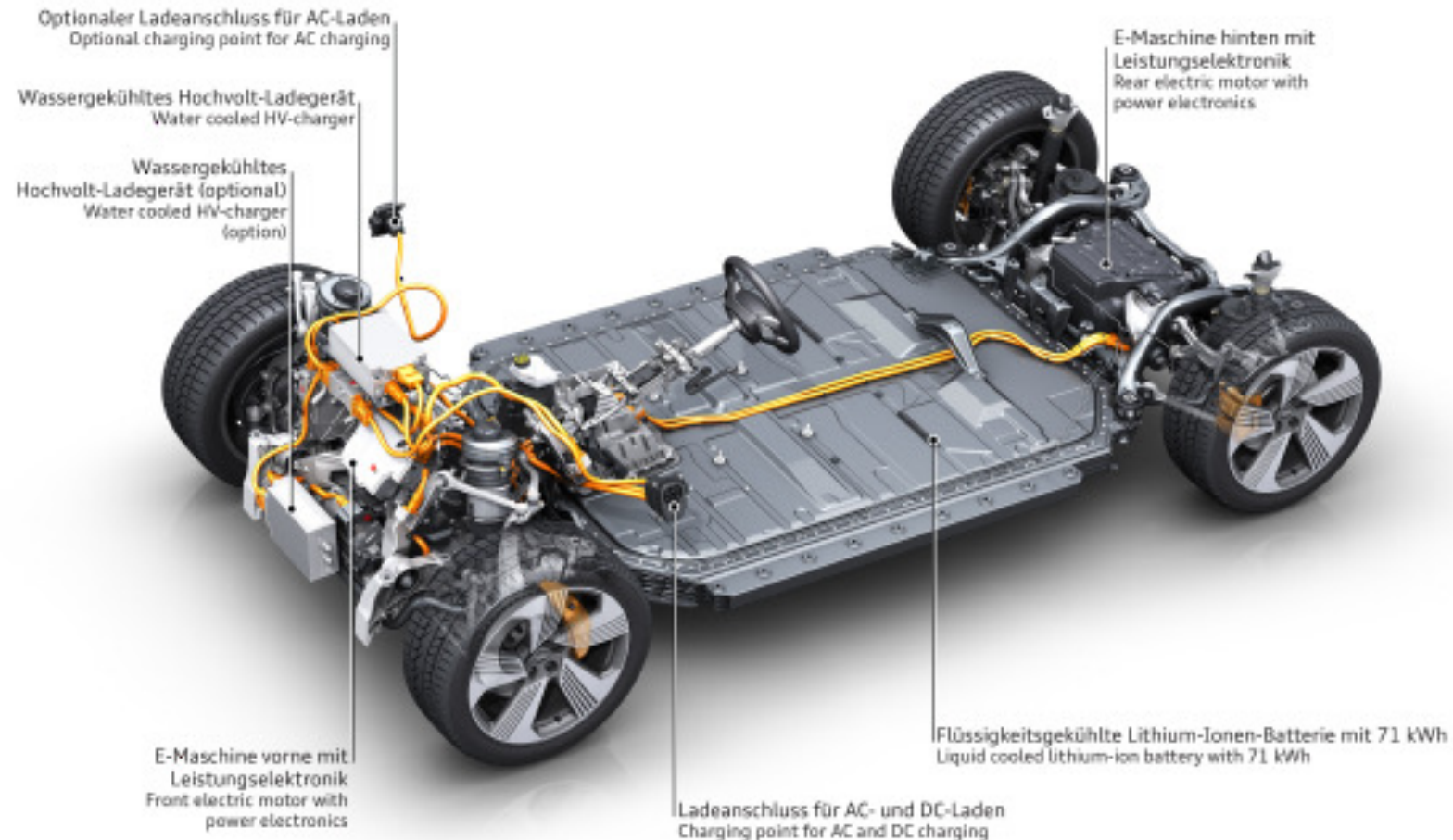
# EV Marketing?

## Audi e-tron 50 quattro

### Elektrischer Antriebsstrang

Electric drivetrain

07/19





# EV Marketing!



Quality. Style. Emotion.

## California Mode

Now Streaming: Fresh Air

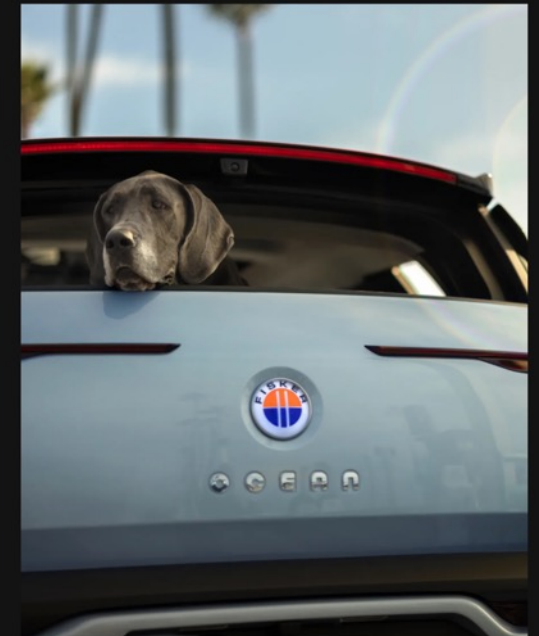
Push a button and eight glass panels open simultaneously to transform a versatile SUV into a coastline-cruising convertible. With our exclusive California Mode, you can drop the front windows, both rear-seat windows, both rear Doggie windows next to the D-pillar, and the Rear Lift Gate Window while opening the SolarSky roof at the same time. You can even load a surfboard through the open rear window.

Fisker HyperSound +

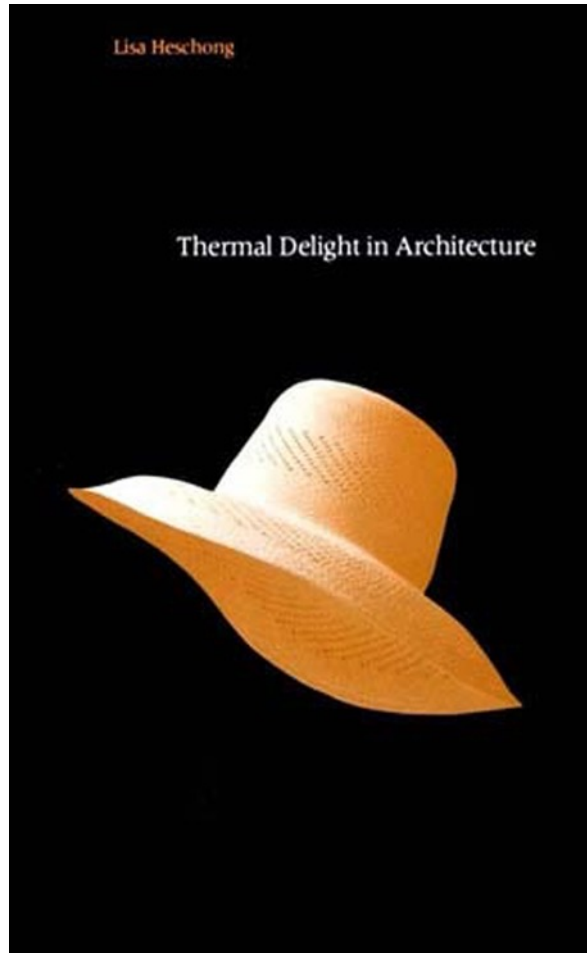
Modern SUV Design +

Spacious Interior +

Limo Mode +



# Perfectly Controlled? Thermal Delight!



**Our level of understanding makes it theoretically possible to provide for all of our nutritional needs with a few pills and injections. However, while eating is a basic physiological necessity, no one would overlook the fact that it also has a profound role in the cultural life of a people. A few tubes of an astronaut's nutritious goop are no substitute for a gourmet meal. It lacks sensuality– taste, aroma, texture, temperature, color.**

# Building Performance

A large wooden deck with a railing is set on a hillside. In the foreground, there are several wooden Adirondack chairs and a dining table with chairs. The deck overlooks a lush green valley with rolling hills and a clear blue sky. The scene is bright and sunny, with shadows cast on the deck.

**CONNECTION to Outdoors?**

# Building Performance

Daylighting AND Views?



# Building Performance

## Daylighting AND Views?

Lisa Heschong

### Visual Delight in Architecture

Daylight, Vision, and View



# Building Performance

A dramatic sunset over a valley. The sky is filled with vibrant orange and red clouds, transitioning to a darker blue at the top. The valley below is dark, with silhouettes of trees and buildings. On the right side of the image, a portion of a modern building with a white facade and a dark door is visible.

## Relationship to Surroundings?

- How does it interact with the Sun?  
(Shade in summer; warmth in winter)
- Can you greet the sunrise? Toast the sunset?

# **per·for·mance (pər-fôr'məns)**

n.

1. The act of performing or the state of being performed.
2. The act or style of performing a work or role before an audience.
3. The way in which someone or something functions.
4. A presentation, especially a theatrical one, before an audience.
5. Something performed; an accomplishment.
6. Linguistics One's actual use of language in actual situations.

# Building “Performance”

**In Balance?**

**or Machinery Battling for Comfort?**





# Building “Performance”



Moving?

**Building “Performance”**



**Exciting?**

# Building “Performance”



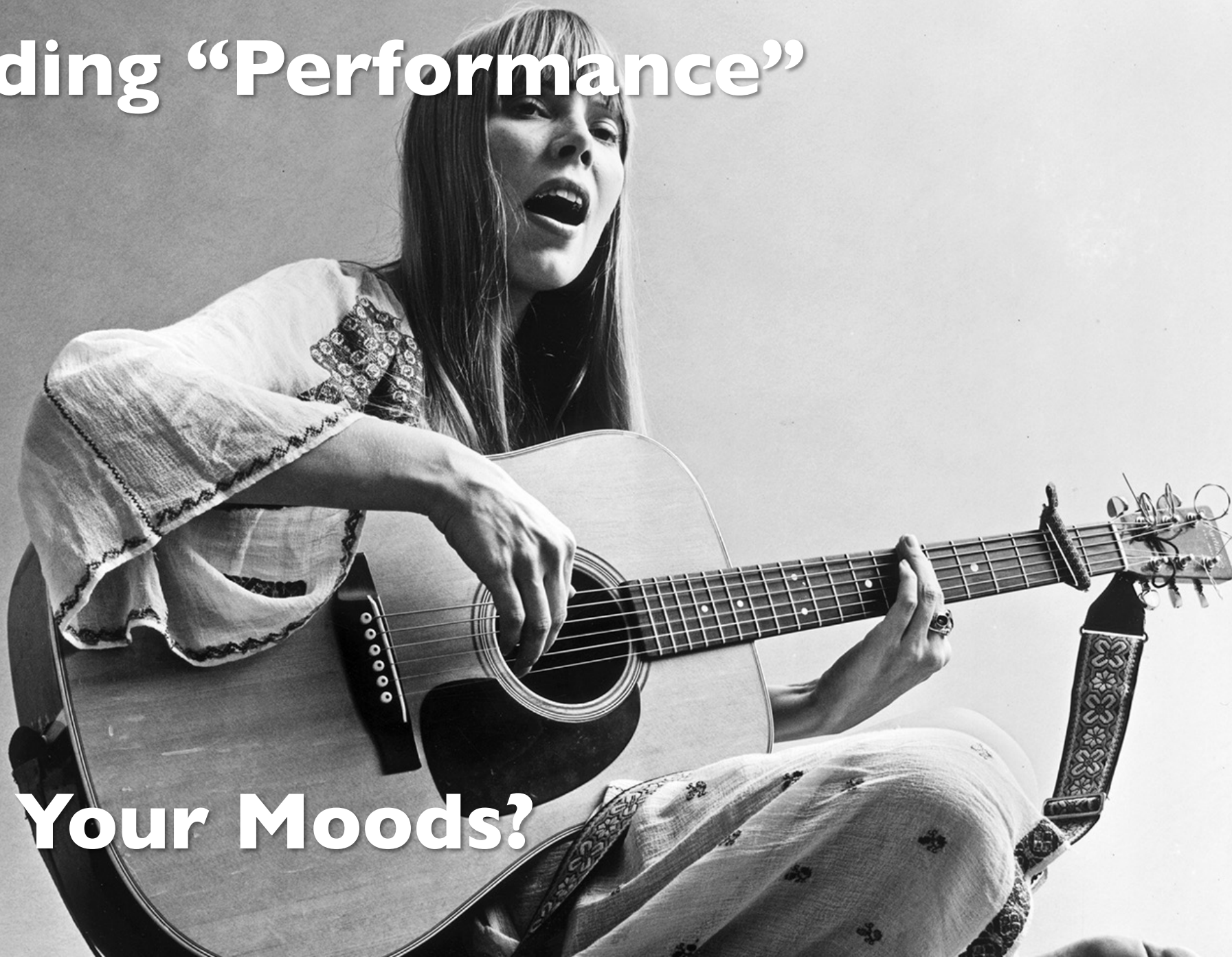
Soothing?

**Building “Performance”**

**Energizing?**



**Building “Performance”**



**Suit Your Moods?**

A group of San Francisco Giants players and staff are celebrating on the field. In the foreground, a player in a grey uniform with "SAN FRANCISCO" on the front is running towards the left, shouting with his mouth open. Behind him, another player in a black hoodie with "San Francisco" written on it is also shouting and has his arm around the first player. To the right, a catcher in a grey uniform with "BELT" and the number "9" on his back is visible. Other players and staff are in the background, all appearing to be in a state of high energy and celebration. The scene is set on a baseball field with a large crowd of spectators in the background.

**Building “Performance”**

**Foster Connection?**

A female soccer player in a black sports bra and white shorts is kneeling on a green field, celebrating with her mouth wide open and arms raised. She is holding a white jersey in her right hand. In the background, other players in white jerseys are running on the field, and a large crowd of spectators is visible in the stands.

**Building “Performance”**

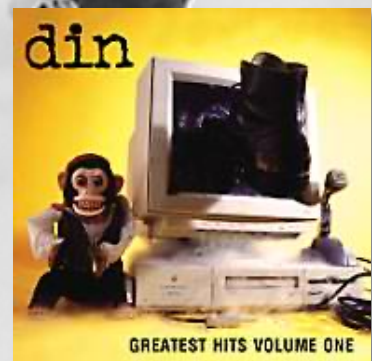
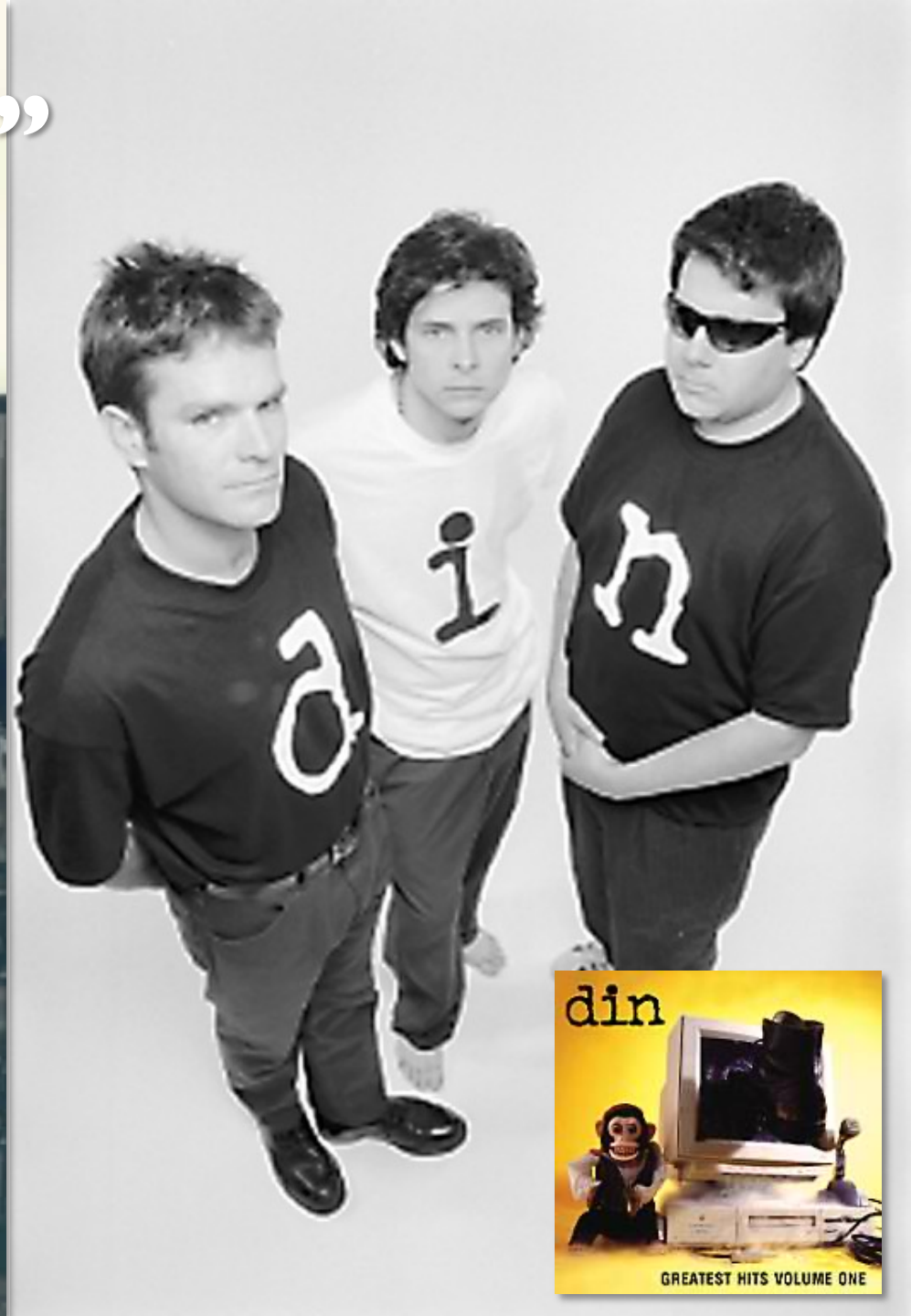
**Evoke Pride?**

**(Consistent with Other Standards?)**

# Building “Performance”



Express Identity?





# “Eco Identity”



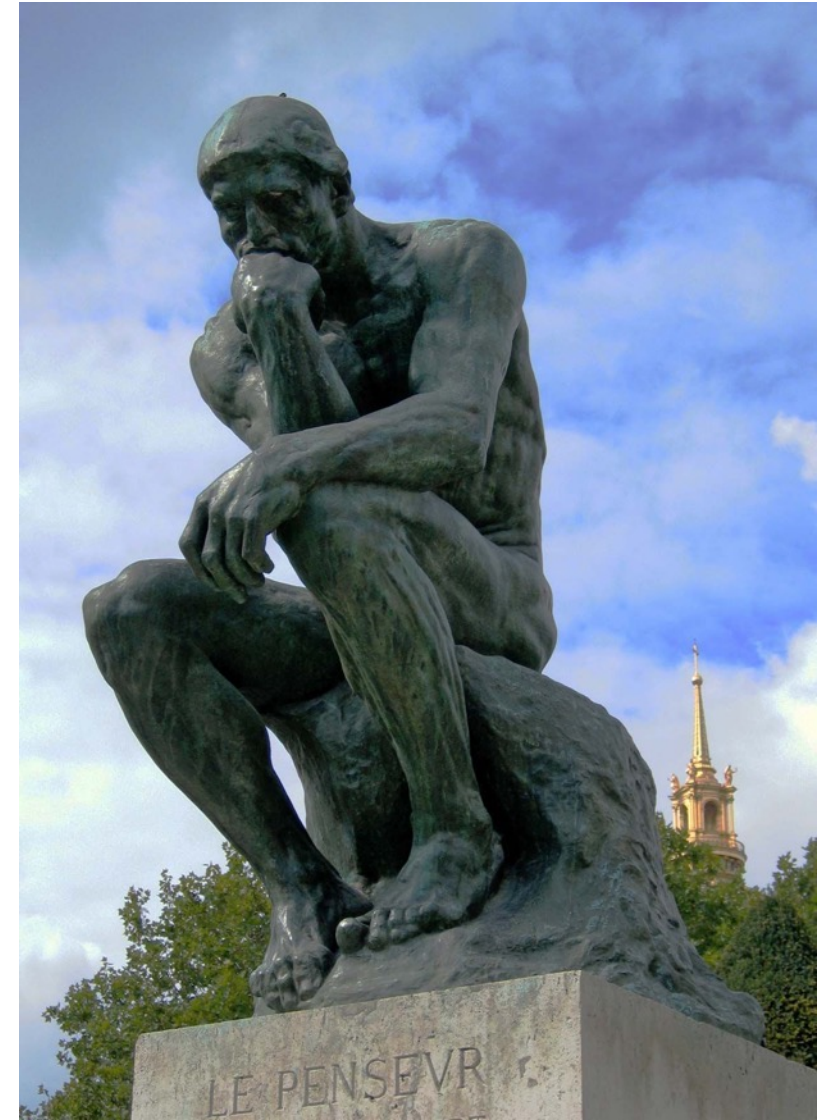
**2012 TOYOTA PRIUS**  
**50 MPG**  
**\$23,015**



**2012 HONDA CIVIC HYBRID**  
**44 MPG**  
**\$24,200**

# **THEN, Justify with Logic**

- **World's highest standards for health, comfort, quiet & efficiency**
- **Solar can easily zero utility bills, including car charging**
- **Investment pays back for decades**
- **Is your “Smart” home also “Wise?”**



# Go Easy on the Technical Details!

world-class

# BUILDING SCIENCE

PH vs CA Code

H/C/Src. Energy  $\leq$ PH Standard?

Super-insulated, Draft-free Shell

Unvented, High-performance Roof

CallPASSIV "Super Wall"

Shade-Optimized

High-Performance Windows & Doors

"Fresh Air Furnace"

Polished, Insulated, Concrete Floor

PASSIVE HOUSE DETAILS

Our flagship projects are designed to Passive House/Passivhaus standards, a thorough, physics-based methodology with a 30+ year track record and tens of thousands of built examples around the world. Passive House sets the world's highest standards for health, comfort, and efficiency. It's a great basis for a fantastic home.

### How It Works

Carefully designed and meticulously constructed enclosures make these buildings "passive" – balanced with the environment and requiring minimal "active" heating and cooling for year-round comfort. Centralized, continuous ventilation with heat recovery maintains the indoor temperature while supplying filtered, fresh outdoor air.

High performance is coupled with best-in-class lighting, appliances, and equipment for unmatched efficiency. It's a paradigm shift, where quality is defined by how little energy is required to provide for healthy, safe, and comfortable occupancy. Money that would typically be spent on bigger utility bills is instead invested in a high-quality building that delivers "efficiency dividends" over its lifetime, along with superior indoor air, durability, and unmatched comfort and quiet.

Passive buildings have light environmental footprints and are perfectly suited to renewable energy, looking beyond net zero to good "renewable grid citizenship." Much smaller solar systems are needed to zero their utility bills, including car charging, and smaller battery systems are required for power during grid outages. The buildings themselves act as "thermal batteries," maintaining comfortable interior temperatures for days without power and allowing any supplemental heating or cooling to occur during hours of lower grid demand.

**A Generalist Sells.  
An Expert Educates.**



**Personalize:  
Tell YOUR Story to YOUR People**



ESSENTIAL  
HABITAT  
ARCHITECTURE



PRACTICE PLANNING PROJECTS PROFESSIONALS PROPAGANDA

CONTACT

LIVE THE MODERN CALIFORNIA DREAM  
HIGH-DESIGN, HIGH-PERFORMANCE HOMES FOR THE FUTURE OF CALIFORNIA

**(2022 WEBSITE INTRO)**

**“It’s Been Emotional”**

- Big Chris (Lock, Stock & Two Smoking Barrels)

**Thank You!**  
**Questions?**

ESSENTIAL  
HABITAT  
ARCHITECTURE

