Carbon Storing Buildings: A Gateway to Justice and Belonging

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Northeast Sustainable Energy Association (NESEA)
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Learning objectives

● Participants will discover and appraise the development of both organizations to identify the ways in which theoretical goals can be translated into improved, scalable practice.

● Participants will evaluate the manner in which both organizations incorporated their values into building projects and products and can make associations with their own practices.

● Participants will identify strategies used by the presenters that have resonance and applicability to their own practices, and how lessons learned can be useful to the industry.

● Participants will engage in discussion about the ways in which such goals and ideals can be further embedded in their own practices and scaled into our industry as a whole.
Why Climate Justice in Buildings: Stakes & Opportunities

Eve, Elio, Marina, José, and Nacho at the Gryphon Straw Panel fabrication shop at New Frameworks
The "Normal" Construction Industry

Trans and non-binary folks and women
Black & Indigenous & people of color
Earth & Ecology
Natural materials
Immigration & migration
Climate change & healing

Redraw, now:
Construction Practice Redefined
Carbon Storing, Climate Just Buildings: Opportunities

Round 1: Building the Team

Round 2: Relationship with Earth

Round 3: Scale
Round 1:  
Building the Team for Climate Justice
Deirdre McGahern, Straworks, Inc.

Camp Kawartha Health Center, Straworks, Inc., 2021
Gryphon by New Frameworks & Migrant Justice

Organizing for Immigrant Rights & Agricultural Justice

migrantjustice.net

Dave Kenyon, Nitty Gritty Grain Company, Charlotte

Eve, Nacho, Eliana, José, and Marina at the Gryphon by New Frameworks Shop
Reflection/Discussion - In The Next 6 months:

- Opportunities to grow my team or partnerships include...
- Some skills I need to develop to successfully build a diverse team are...
- Resources I can use to support myself and/or my team are...
- Local or regional groups I can build relationships with to help me grow my team could be...
Round 2:
Centering Human Relationship with Earth

“Humans can make Earth better where we stand” - Leah Penniman, founder, Soul Fire Farm
Net zero energy
Net zero embodied carbon
Zero toxins
Zero waste
Soul Fire Farm Institute, Mohican Nation (Petersburgh, NY) - New Frameworks
Reflection/Discussion - In The Next 6 months:

● The opportunities I see in my next project to center Earth wellness are...
● The stacked benefits I can see for my project or my work are....
● Metrics I can use to evaluate my projects based on Earth care include...
Round 3:
Scale
BEAM - Builders for Climate Action

Tool for one project... Becomes a free tool for all

Materials Matter
The same building can have very different up-front embodied carbon emissions (UEC)

Total Net Emissions
High UEC
- 241 kgCO2/yr

Typical UEC
- 90 kgCO2/yr

Best Conventional UEC
- 84 kgCO2/yr

Best UEC
- 137 kgCO2/yr

Assembly includes:
- High carbon concrete
- XPS & closed cell spray foam
- Brick cladding
- Steel interior framing
- Drywall
- Vinyl windows
- Tile & carpet flooring
- Clay tile roofing

Assembly includes:
- High SCM concrete
- Cellular & wood fiberboard insulation
- Wood cladding
- Wood & fibre framing
- Drywall & wood walls
- Aluminum clad windows
- Engineered wood & FSC laminated wood framing
- Steel roofing

Building Emissions Accounting for Materials
BEAM - Builders for Climate Action

Studies using tool...

Become incentive program

High, Average and Low Embodied Carbon
Emissions Results of As-Built Homes 2021-2022

Average High Result: 365
Overall Average Result: 178
Average Low Result: 117
Total Homes: 780

Carbon Reductions | Financial Compensation
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30 - 39% [121-140 kgCO2e/m2] | $5,000
40 - 59% [81 - 120 kgCO2e/m2] | up to $15,000
60 - 69% [61 - 80 kgCO2e/m2] | up to $20,000
70 - 79% [41 - 60 kgCO2e/m2] | up to $30,000
80 - 100% [<40 kgCO2e/m2] | up to $40,000
Gryphon Straw Panels - Gryphon by New Frameworks

One Cabañita…

Becomes Cabavillas….
Reflection/Discussion - In The Next 6 months:

- The opportunities I see to increase the scale & impact of my work include...
- Resources I can use to increase my potential and reach are...
- Steps I can take to more intentionally align with the climate justice movement include...
Wrap Up & Out

Share out a few things you are committed to doing in the next few months as a result of the work in this session.

Goodbye and thank you!

New Frameworks

www.newframeworks.com  www.buildersforclimateaction.org
Resources

- “In Vermont, a new model emerges to improve migrant farmworker housing”, Energy News Network, May 3 2021
- HELM Construction Solutions’ Breaking Down Gender Bias Toolkit: https://buildhelm.com/blog/toolkit, HELM’s “Building Healthy Culture: Men Dismantling Patriarchy” training, Bootcamp
- Soul Fire Farm: https://www.soulfirefarm.org/, Migrant Justice: https://migrantjustice.net/
- BEAM Tool: https://www.buildersforclimateaction.org/beam-estimator.html
- Gryphon Panels: https://newframeworks.com/blog/2021/2/12/gryphon-panels-info-amp-impact
- Straworks, LLC: https://straworks.ca/
- Carbon Leadership Forum: https://carbonleadershipforum.org/
- Pretty Good House: https://www.prettygoodhouse.org/