

The Ultimate Act of Sustainability

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2016 Fall Convention | November 9-11 | Cleveland, Ohio

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AIA Presentation
1 CEU with HSW, SD
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Learning Objectives

At the conclusion of this program, learners will be able to:

- **Compare** the benefits of restoration in comparison to new development
- **Recognize** the economic impact of restoration on local communities
- **Explain** the regenerative effect restoration has on cities
- **Recognize** how building restoration contributes to sustainable development

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An Unconventional Look at Restoration

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URBAN RECONSTRUCTION

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REURBANISM

Shaping Communities Through Reuse

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Urban Reconstruction

Industry Drivers

- Urban growth
- Gentrification
- Population shift
- Technology
- Labor shortage
- Sustainability

“Old buildings are the new economy.”
Jean Carroon, FAIA
Principal
Goody, Clancy & Associates



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Sustainability is about more than CO₂

Sustainability as a Business Driver


- Sustainable **economic** growth
- **Social** change that lasts
- Solutions that maximize **existing** resources




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Restoration plays a vital role

What is a Building



- 4 walls and a roof
- Brick and mortar
- A structure
- An asset



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What is a Building



- People
- Commerce
- History
- Emotion
- Energy
- Potential

“Cities are only successful when they work for everyone.”
Forum Online – Preservation Leadership Forum



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Restoration Plays a Vital Role

"If you want to get people back to work, tuckpoint a building."

Roger Oberg, Principal
BKBM Engineers



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Economic Impact
01

Social Benefit
02


Environmental Impact
03

Moving Forward
04

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Economic Impact of Restoration

What can the Restoration industry learn from Preservationists?



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Restoration is a Constant in Construction

The Driver - 3 C's:

- Constraint**
Running out of quality Greenfield areas for development
- Contamination**
Developed land is contaminated
- Corrosion**
Built environment is deteriorating




Drivers for Restoration are "built in" and permanent

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Economic Impact of Restoration

- List of restoration benefits
- Authored by **Donovan Rypkema**
- 100 arguments for historic preservation
- Cited studies from cities and states
- Quantification of the impact of building restoration



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Economic Impact of Restoration

- Restoration creates local jobs
- Restoration creates more local jobs than new construction
- Greater impact on local suppliers
- Incremental development
- Counter cyclical activity that stabilizes local economies
- Life expectancy of restored buildings
- An effective economic development strategy
- Enables cities to compete with suburbs
- Efficient spaces for new uses
- Restoration is fiscally responsible

Top 3 Reasons

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Restoration Creates Local Jobs



- Majority of cost related to labor – hired locally
- Local wages stay in the community
- New demand creates need for more local services

"In Michigan, \$1 million in building rehabilitation creates 12 more jobs than does manufacturing \$1 million worth of cars."

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Restoration is Incremental Development



"Old one-shot or quick fix formulas for attracting businesses or building sports stadiums or increasing tourist advertising typically fail to deal with the root causes of contemporary place predicaments."

Marketing Places

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Restoration is Fiscally Responsible



- 44,000 commercial buildings are demolished annually in the United States
- Demolition of buildings in the United States produces about 124 million tons of debris a year
- 2.5M buildings built during the "age of plastics"

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Benefits Beyond the Building

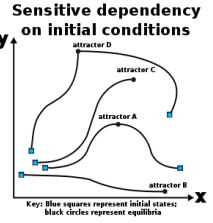


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Transformative Power of Restoration

- Nothing happens in a vacuum
- It is impossible to improve one without affecting others
- Restoration becomes a catalyst for more restoration
- The effects of restoration are far reaching

Sensitive dependency on initial conditions



Key: Blue squares represent initial states
black circles represent equilibria

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Social Benefits of Restoration

1. Restoration leads to ReUrbanism
2. Restoration demonstrates public commitment
3. Increases the value of restored buildings
4. Increases the value of adjacent buildings
5. Creates a catalyst for investment
6. Restored buildings are ideal for business incubation
7. Quality of life is enhanced
8. Downtown reflects community's leadership
9. Decrease in crime
10. Provides a diversity of space and rent levels

Top 3 Reasons

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Restoration Leads to ReUrbanism



- Gentrification lends stability to neighborhoods
- Homesteading brings stability and reduction in crime
- Homesteading leads to more investment

"Ownership promotes virtue and responsibility."
Aristotle

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Restoration is a Catalyst for Investment



- Restored neighborhoods create economic vitality
- Improved values attract investment

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Quality of Life is Enhanced




- New business growth
- Private investment
- Increase in tourism
- Increased property values
- Sense of neighborhood
- Job creation
- Sensible land use
- Increased property/sales tax
- Dilute pockets of poverty, deterioration

Advisory Council on Historic Preservation

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Environmental Impact of Restoration




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Environmental Impact of Restoration



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Buildings and Climate Change



Buildings consume:

- 70% of all electricity
- 37% of all energy
- 28% of all water
- 30% of wood and materials

Building Products:

- 35% of solid waste in landfills
- 36% of CO₂
- 45% of SO₂
- 19% of NO_x
- 10% of fine particulate emissions


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Current Industry Response

- Green building and sustainable construction have become table stakes
- Building rating systems
- Limited emphasis on restoration
- Federal mandates
- State and local regulation


"We can't build our way out of the global warming crisis. We have to conserve our way out. That means we have to make better, wiser use of what we've already built."

— Richard Moe, Former President NTHP




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Environmental Impact of Restoration



What is more sustainable than reusing an existing building?



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Environmental Impact of Restoration

1. Restoration uses and preserves existing materials
2. Restoration eliminates solid waste from landfills
3. Most older buildings are composed of low E² materials
4. Many older buildings are sited to take advantage of light and wind
5. Older buildings can be energy efficient
6. Restored buildings utilize existing infrastructure
7. Restored buildings are typically located near mass transportation
8. Most downtowns are pedestrian friendly
9. New construction is dependent upon high E² materials
10. New construction creates 1.5x more greenhouse gas

Top 3 Reasons



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Restoration Uses Existing Resources



- Intrinsic in its name, restoration restores materials and assemblies to their original condition


It is irresponsible to not take care of that which we already have




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Older Buildings Can be Energy Efficient

- Most older buildings composed of brick, stone and masonry
- Thermal mass effect of load bearing masonry walls
- Buildings were sited to take advantage of light and wind
- Advances in window technology has increased energy performance





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Restoration Uses Existing Infrastructure



- Utilizes existing utilities
- No need to extend services
- Existing roads and highways
- Minimizes disruption and displacement



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Where Do We Go From Here?

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Change Your Paradigm

- The work you do is important
- What you do matters
- Restoration makes a difference

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Collaborate

- Grow the entire pie
- Solve challenges together
- Collective voice

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Tell Our Story

- Restoration is a powerful tool
- Industry of experts filled with passion
- Collective voice
- Our industry's value proposition

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Solve the Development Gap

- Make buildings economically viable
- Solve the challenges of "Recent Past" buildings
- Develop better tools to demonstrate the value

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Improve Our Product


- Solve hard problems
- Raise level of performance
- Develop meaningful standards
- New approaches to old problems

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A Good Idea


Building Restoration can be a major element of Urban Reconstruction as well as the foundation of sustainable development



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Sources

- 'The Restoration Economy – Storm Cunningham
- The Economics of Historic Preservation – Donovan Rypkema
- History's Green Genes – Walter Sedovic
- Sustainable Stewardship: Historic Preservation's Essential Role in Fighting Climate Change – Richard Moe
- Preservation of Modern Architecture – Theodore H.M. Prudon
- Social Benefits of Homeownership & Stable Housing – National Association of Realtors
- Preservation Needs a Vocabulary Reset – Clem Labine
- Silver Lining – Peter Miller
- The Real Change to Come – Michael Lykoudis

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Four Business Lines in North America
BASF Corporate Overview

» **Admixture Systems**

- Concrete Admixtures
- Cement Additives
- Solutions for Mining and Tunneling

» **Construction Systems**

- Concrete Repair and Protection
- Air Water Resistive Barriers
- Sealants and Waterproofing
- Commercial Flooring

MASTER BUILDERS SOLUTIONS

» **Watson Bowman Acme**

- Expansion Control Systems



» **Wall Systems**

- Wall System solutions for EIFS, Stucco






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