THE ROLE OF HERITAGE IN SUSTAINABLE DEVELOPMENT AND URBAN RESILIENCE

Speaker
Mr Donovan Rypkema
President, Heritage Strategies International
Lecturer, University of Pennsylvania

Moderator
Mr Ho Weng Hin
Partner & Director, Studio Lapis
Adjunct Senior Lecturer, NUS
The Role of Heritage in Sustainable Development and Urban Resilience
Sustainable Development: The ability to meet our own needs without prejudicing the ability of future generations to meet their own needs.
The word "sustainable" is unsustainable.
Sustainable Development Represented
Green buildings are necessary but not sufficient for Sustainable Development
Building Sustainability Assessment Tool

**Economic**
- Efficient
- Economic return
- Efficient land use
- Form of Tenure
- Quality of Transportation Access
- Maintenance of fabric
- Functional adaptability

**Social**
- Cultural adaptability
- Cultural importance
- Lovability
- Construction legislation
- Occupation legislation
- Local amenities
- Quality of work environment

**Environmental**
- Environmental standards
- Energy consumption
- Embodied energy
- Hazardous/deleterious
- Environmental quality
- Ecological
- Technological adaptability
“Head of Green Building Council Links Sustainable Development and Heritage Conservation”

Philippines Green Building Council
Recycle?

Reuse?

Reduce?
Sustainable Development as a concept has evolved
Heritage Conservation as Sustainable Development

Environmental Responsibility
At most 10% of “environmental” projects advance the cause of heritage.

100% of heritage projects advance the cause of the environment.
Environmental Responsibility

25% to 33% of land fill from construction debris
Demolish this one small historic benefit and wipe out impact on land fill of
1,344,000 aluminum cans recycled
20 - 40% reduction in Vehicle Miles Traveled

Reduction of travel related CO₂ Emissions by 92 – 123 Metric Tons

CO₂ “saved” = 18,700 to 22,000 gallons of gasoline

Embodied energy retained 55,000 MBTU

Greenfield land preserved 5.2 acres

Less construction debris in landfills 2500 Tons

Infrastructure investment saved $500,000 to $800,000

Reuse 50,000 s.f. warehouse instead of building new in suburbs
Environmental Responsibility

It takes 10 to 80 years of an energy efficient new building to make up for the negative climate change impacts of construction.

Building reuse almost always offers environmental savings over demolition and new construction.
A multifamily structure built since 1980 uses 13% more energy per square foot than one built before 1920.
Heritage Conservation as Sustainable Development

Social Responsibility
Heritage as Education

Social Responsibility
Heritage areas provide the venue for...

Active Street Life

Passive Street Life

The informal economy

Personal attachment to the city

Social Responsibility
Household Income Distribution
San Antonio and Historic Districts

<table>
<thead>
<tr>
<th>Income Range</th>
<th>San Antonio</th>
<th>Historic Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $25,000</td>
<td>35%</td>
<td>30%</td>
</tr>
<tr>
<td>$25,000 - $49,999</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>$50,000 - $74,999</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>$75,000 - $99,999</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>$100,000 - $149,999</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>$150,000 +</td>
<td>5%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Racial Distribution
San Antonio and Historic Districts

- **San Antonio**
  - White: 68.5%
  - African-American: 6.9%
  - Other: 23.0%

- **Historic Districts**
  - White: 75.0%
  - African-American: 6.8%
  - Other: 16.0%

Social Responsibility
Social Responsibility

Hispanic Population
San Antonio and Historic Districts

- San Antonio: 63.0% Hispanic, 37.0% Non-Hispanic
- Historic Districts: 60.3% Hispanic, 39.7% Non-Hispanic
Rhode Island Historic Districts: Demographic Mirrors of the Community

Social Responsibility

Population by Income

- **More than $100,000**
- **$75,000-100,000**
- **$50,000-75,000**
- **$25,000-$50,000**
- **Less than $25,000**

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Rest of the State</th>
<th>Local Historic Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than $100,000</td>
<td>25.6%</td>
<td>26.0%</td>
</tr>
<tr>
<td>$75,000-100,000</td>
<td>13.0%</td>
<td>12.2%</td>
</tr>
<tr>
<td>$50,000-75,000</td>
<td>17.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td>$25,000-$50,000</td>
<td>21.3%</td>
<td>20.9%</td>
</tr>
<tr>
<td>Less than $25,000</td>
<td>23.1%</td>
<td>24.9%</td>
</tr>
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</table>
Rhode Island Historic Districts: Demographic Mirrors of the Community

Population by Race

<table>
<thead>
<tr>
<th></th>
<th>Local Districts</th>
<th>Rest of Rhode Island</th>
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</thead>
<tbody>
<tr>
<td>White Alone</td>
<td>81%</td>
<td>81%</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Asian</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Black</td>
<td>6%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Social Responsibility
<table>
<thead>
<tr>
<th></th>
<th>Average Walk Score</th>
<th>Designation</th>
</tr>
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<tbody>
<tr>
<td>Raleigh</td>
<td>29</td>
<td>Car-dependent</td>
</tr>
<tr>
<td>Local historic districts</td>
<td>82</td>
<td>Very walkable</td>
</tr>
<tr>
<td>National Register historic districts</td>
<td>64</td>
<td>Somewhat walkable</td>
</tr>
<tr>
<td>All historic districts</td>
<td>73</td>
<td>Very walkable</td>
</tr>
</tbody>
</table>
WALKSCORES BY DISTRICT

City of Nashville
Cherokee Park
Whittland Ave
Richland-West End
Woodlawn-West
Salemtown
Elmington Place
Bowling House
Hillsboro-West End
Richland-West End Addition
Woodland-In-Waverly
Eastwood
Greenwood
Waverly Belmont
Edgehill
Lockeland Springs
Belmont-Hillsboro
South Music Row
Park-Elkins
Germantown
Edgefield
Maxwell Heights
Blakemore
Broadway
2nd Avenue
Downtown
Heritage Conservation as Sustainable Development

Economic Responsibility
Natural incubator for small, neighborhood serving businesses
Jobs created per $1 million of activity

- Automobile Manufacturing: 3.5
- Computer Manufacturing: 4.0
- Air Transportation: 8.7
- Poultry Processing: 10.4
- New Construction: 14.9
- Historic Rehabilitation: 18.1
Location of New Business in Downtown Raleigh - 2013

- Historic Buildings: 46%
- New Construction: 32%
- Older Buildings: 22%

Legend:
- Historic Buildings
- Older Buildings
- New Construction
Value Change 1999 - 2014
Savannah Local Historic Districts

<table>
<thead>
<tr>
<th>District</th>
<th>1999</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rest of Savannah</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cuyler-Brownsville</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-City</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savannah HD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victorian</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Change in Value 2003 - 2015
Local Historic Districts vs City
2003 = 100

Economic Responsibility
Share of Heritage Visitors in San Antonio

OVERNIGHT VISITORS

- Heritage Visitors: 58.1%
- Non-Heritage Visitors: 41.9%

DAY VISITORS

- Heritage Visitors: 47.3%
- Non-Heritage Visitors: 52.7%

Economic Responsibility
Per Person Per Trip
Overnight Visitors to San Antonio

- Lodging
- Transportation within San Antonio
- Food & beverage
- Retail
- Recreation

Economic Responsibility
Local Historic Districts and Job Attraction - Indianapolis

- Land Area: 3.6%
- Jobs: 16.2%
- Accommodation & Food Service: 21.0%
- Professional/Scientific/Technical Services: 28.2%
Historic Districts as Job Attractors

- **Young Firm Jobs**: 10.9%
- **Start-up Firm Jobs**: 10.1%
- **Small Firm Jobs**: 9.9%
- **Private Sector Jobs**: 8.0%
- **Lots**: 3.4%

Economic Responsibility
Economic Responsibility

Jobs at Small Firms
Number of Jobs
- 134 - 464
- 37 - 132
- 0 - 36

Historic Districts
Cultural Responsibility
Heritage areas provide the venue for...

Street Performers

Arts Districts

Artists & the Creative Class

Public gathering space
Cultural Responsibility

Jobs in Knowledge and Creative Industries

- Share of All Jobs: 8.0%
- Professional, Scientific, and Technical Services: 10.4%
- Information: 13.8%
- Educational Services: 14.0%
- Arts, Entertainment, and Recreation: 20.3%
Heritage Tourism and Music in Nashville

### Cultural Responsibility

**WHAT SPECIFIC NASHVILLE EXPERIENCES WERE MOST IMPORTANT IN YOUR DECISION TO VISIT THE CITY?**

- **Live Music**: 82.4%
- **Arts & Culture**: 58.1%
- **Nightlife**: 35.3%

**HOW MANY LIVE MUSIC VENUES HAVE YOU VISITED ON THIS TRIP?**

- **Three or More**: 63.5%
- **Zero**: 20.4%

**LIVE MUSIC IS THE SINGLE MOST IMPORTANT REASON WE DECIDED TO VISIT NASHVILLE**

- **Heritage Visitors**: 41.1%
- **Non-Heritage Visitors**: 17.3%
Cultural Responsibility

Hand plastering, Kikinda, Serbia
Cultural Responsibility

Decorative wood pieces, Sharjah, United Arab Emirates
Cultural Responsibility

Restoring wall painting, Hue, Vietnam
Decorative woodwork, Hue, Vietnam
Plaster worker, Sumatra, Indonesia
Handmade tools, Tbilisi, Georgia
Sustainable Development Goals
Targets Mentioning Cultural

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development (4.7)

By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products (8.9)

Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products (12b)
Primary Cultural Heritage
Sustainable Development Goal (11.4)

Goal
Make cities and human settlements inclusive, safe, resilient and sustainable

Target
Strengthen efforts to protect and safeguard the world’s cultural and natural heritage

Indicator
Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations, in kind, private, non-profit sector and sponsorship)
Singapore is committed to play our part to realise the aspirations we share in this milestone Conference, and to create cities that are inclusive, safe, resilient and sustainable for all our future generations.

MR DESMOND LEE
SPECIAL ENVOY OF THE PRIME MINISTER TO HABITAT III
18 OCTOBER 2016
New Urban Agenda Commitments involving Heritage Conservation

Leverage cultural heritage ... to strengthen social participation and the exercise of citizenship (38)

38. We commit to sustainably leverage natural and cultural heritage in cities and human settlements, as appropriate, both tangible and intangible, through integrated urban and territorial policies and adequate investments at the national, sub-national, and local levels, to safeguard and promote cultural infrastructures and sites, museums, indigenous cultures and languages, as well as traditional knowledge and the arts, highlighting the role that these play in the rehabilitation and revitalization of urban areas, and as a way to strengthen social participation and the exercise of citizenship.
45. We commit to develop vibrant, sustainable, and inclusive urban economies, building on endogenous potentials, competitive advantages, cultural heritage and local resources, as well as resource-efficient and resilient infrastructure, promoting sustainable and inclusive industrial development, and sustainable consumption and production patterns, and fostering an enabling environment for businesses and innovation, as well as livelihoods.
New Urban Agenda Commitments involving Heritage Conservation

60. We commit to sustain and support urban economies to progressively transition to higher productivity through high-value-added sectors, promoting diversification, technological upgrading, research, and innovation, including the creation of quality, decent, and productive jobs, including through promoting cultural and creative industries, sustainable tourism, performing arts, and heritage conservation activities, among others.
New Urban Agenda Commitments involving Heritage Conservation

**Promote regeneration...while preserving cultural heritage and preventing and containing urban sprawl (97)**

97. We will promote planned urban extensions, infill, prioritizing renewal, regeneration, and retrofitting of urban areas, as appropriate, including upgrading of slums and informal settlements, providing high-quality buildings and public spaces, promoting integrated and participatory approaches involving all relevant stakeholders and inhabitants, avoiding spatial and socio-economic segregation and gentrification, while preserving cultural heritage and preventing and containing urban sprawl.
New Urban Agenda Commitments involving Heritage Conservation

Include culture as a priority component of urban plans and strategies...that safeguard cultural heritage (124)

124. We will include culture as a priority component of urban plans and strategies in the adoption of planning instruments, including master plans, zoning guidelines, building codes, coastal management policies, and strategic development policies that safeguard a diverse range of tangible and intangible cultural heritage and landscapes, and will protect them from potential disruptive impacts of urban development.
New Urban Agenda Commitments involving Heritage Conservation

**Support leveraging cultural heritage for sustainable urban development (125)**

125. We will support leveraging cultural heritage for sustainable urban development, and recognize its role in stimulating participation and responsibility, and promote innovative and sustainable use of architectural monuments and sites with the intention of value creation, through respectful restoration and adaptation. We will engage indigenous peoples and local communities in the promotion and dissemination of knowledge of tangible and intangible cultural heritage and protection of traditional expressions and languages, including through the use of new technologies and techniques.
Urban resilience
Urban Resilience: The capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.

Resilient City: A municipality that has developed capacities to help absorb future shocks and stresses to its social, economic, and technical systems and infrastructure so that it can maintain essentially the same functions, structures, systems, and identity.
“Where sustainability aims to put the world back into balance, resilience looks for ways to manage an imbalanced world.”

*Resilience: Why Things Bounce Back.*
Sustainable Development is about more than environmental responsibility, and includes social, economic, and cultural responsibilities.

Urban Resilience is about more than climate change, and includes stresses and shocks to the city including economic downturns, armed conflict, and domestic political upheavals.
The World Bank sees Cultural Heritage as a development tool that contributes...

- Livability
- Competitiveness
- Inclusion
- Resilience
Heritage and Economic Stimulus

France, Norway, Slovakia, Netherlands, Luxembourg, Canada, Australia, Hong Kong
All the evidence demonstrates that investment in heritage is an inherently sustainable, long term, and measurably successful solution to economic recession.
Foreclosure Rate – Single Family Houses (2008-2012)

- Local Historic Districts: 11.1%
- Conservation Districts: 11.2%
- Rest of City: 25.5%
Foreclosures per 1000 Single Family Houses
Raleigh 2008 - 2013

- Local Historic Districts
- National Register Districts
- City of Raleigh
Foreclosure Rate Single Family Houses
San Antonio 2008 - 2014

<table>
<thead>
<tr>
<th>Location</th>
<th>Foreclosure Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission</td>
<td>4.2%</td>
</tr>
<tr>
<td>Lavaca</td>
<td>5.2%</td>
</tr>
<tr>
<td>Monte Vista</td>
<td>6.9%</td>
</tr>
<tr>
<td>All Historic</td>
<td>8.7%</td>
</tr>
<tr>
<td>Districts</td>
<td></td>
</tr>
<tr>
<td>King William</td>
<td>9.6%</td>
</tr>
<tr>
<td>Dignowity Hill</td>
<td>11.3%</td>
</tr>
<tr>
<td>Olmos Park Terrace</td>
<td>11.9%</td>
</tr>
<tr>
<td>Tobin Hill</td>
<td>12.6%</td>
</tr>
<tr>
<td>Monticello Park</td>
<td>14.6%</td>
</tr>
<tr>
<td>San Antonio</td>
<td>14.6%</td>
</tr>
</tbody>
</table>
Real Estate Values in Down Years

- Historic Districts
- Rest of Savannah
The First Place of Return
Back to Where in the City? Washington, DC 2000 - 2010

Historic Districts
- Share of Population: 45.0%
- Share of Growth: 62.6%

Non Historic District
- Share of Population: 55.0%
- Share of Growth: 37.4%
Boston Population

- 1950: 801,444
- 1960: 697,197
- 1970: 641,071
- 1980: 562,994
- 1990: 574,283
- 2000: 589,141
- 2010: 617,594

Back to Where in the City?
Boston 1990 - 2000

Historic Districts Share of Population: 22.7%
Historic Districts Share of Growth: 36.0%
Principle 7: Enhancing people’s quality of life leveraging on the regeneration and renewal of public and private housing including landscape, historical, and cultural heritage.

Rationale: Reusing and adapting existing buildings is the environmentally, socially, and culturally responsible course of action…the rehabilitation of heritage buildings has been a consistent element in the success stories of urban regeneration.
The preservation movement has one great curiosity. There is never retrospective controversy or regret. Preservationists are the only people in the world who are invariably confirmed in their wisdom after the fact.

John Kenneth Galbraith
Thank you very much