Ideas for the Preservation of Cultural Heritage on the 50th Anniversary of Independence
TIME FOR GUYANA

Ideas for the Preservation of Cultural Heritage on the 50th Anniversary of Independence

Report of an International Heritage Conference held in Georgetown, Guyana
June 6–8, 2016

organized by
Acknowledgements

The Georgetown International Heritage Conference took place in the capital of Guyana from June 6th to 8th, 2016. The event was hosted by World Monuments Fund (WMF) in cooperation with the National Trust of Guyana (NTG).

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Sponsors

World Monuments Fund

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National Trust of Guyana

The National Trust of Guyana was established in 1972 by an Act of Parliament that makes provision for the preservation of monuments, sites, places and objects of historic interest or national importance. The term monument according to the National Trust Act includes any building, structure, object or other work of man or of nature, whether above or below the surface of the land or the floor of the sea within the territorial waters of Guyana and any site, cave or excavation. The mission of this state agency is therefore to conserve, preserve and promote the nation’s patrimony so that present and future generations will be able to access and enjoy the richness of Guyana’s heritage.

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Introduction

Georgetown City Hall, dating from 1889, was included on the 2014 World Monuments Watch, which calls international attention to at-risk cultural heritage sites around the globe. The City Hall is a representative structure of the local traditional wooden construction, threatened by lack of maintenance and awareness of its significance. This marked the first time that a site in Guyana was included on the Watch.

As a result of the site’s inclusion on the Watch, the National Trust of Guyana and World Monuments Fund agreed to collaborate on the organization of the Georgetown International Heritage Conference, which took place on June 6-8, 2016, during a significant time in Guyana’s history, shortly after the historic Fiftieth Independence Jubilee celebrations. The Golden Independence Anniversary, operating under the theme of “Reflect, Celebrate, Inspire,” offered an opportunity to reignite discussions about heritage, and recommit our efforts toward ensuring that it is safeguarded for the benefit of future generations.

The conference was conceived as a way to assist the heritage sector, with experts gathering to share knowledge and expertise to help preserve, promote and protect Guyana’s heritage resources. The main, though not sole, focus was on methods to improve the conservation of the country’s tangible built heritage. This was a major undertaking for the Trust as it became part of the Golden Independence Anniversary schedule of activities.

The heritage sector faces many challenges, including unplanned rapid urbanization, limited or no documentation of heritage resources, demands to modernize historic structures, the notion of “in with the new, out with the old” and the idea that heritage is a hindrance to progress. The speakers delivered presentations that focused on topics of interest to local professionals and stakeholders in an effort to improve the sector as it moves toward the next fifty years, and beyond.

There were seven thematic areas under which presentations were made, including Management and Policy; History & Theory; Documentation & Conservation; Heritage Sustainability; Heritage & Community; World Cultural & Natural Heritage, and the Economics of Preservation. All sessions were moderated by local professionals and video recorded with the intention of sharing the presentations with a larger audience. This publication reports on the proceedings of the conference, and include the main conclusions.

Summary: Rapporteur Report

Outcomes and Considerations

Heritage Sustainability

- Social: Define social context and issues that could impact the inclusion of the broadest range of stakeholders.
- Political: Establish responsibilities of government agencies and encourage coordinated and cooperative efforts. Revise existing and/or create new legislation.
- Economic: Explore new models for conserving cultural heritage resources and evolve urban contexts, public spaces, and other sites and buildings.
- Environmental: Integrate sustainable practices into the conservation and management of built and natural heritage at all scales.
- Educational: Promote knowledge and awareness of history and culture and the role of heritage in bridging and providing continuity between past, present, and future.

Stakeholder Engagement and Values Assessment

- Engage range of stakeholders in the cultural heritage conservation process and assess the values associated with the various Guyanese cultural heritage resources.
- Involve heritage specialists and teams of experts in engagement process.
- Employ strategies, perhaps at community level, such as surveys, interviews, oral histories, focus groups, educational programs, publications, media (social and otherwise), among other research instruments.
- Encourage heritage groups at the community level and promote the integration of conservation strategies in community planning (bottom up approach).

Alternative Model(s) for Urban Heritage Management

- Shift from government as primary steward and provider of funding to an approach that engages new stakeholders to assist with the conservation of the urban environment to meet evolving needs.

"Urban heritage is an asset for development when it satisfies contemporary needs within the limitations posted by its carrying capacity – the free market does not produce this outcome and the government alone cannot do it. Coordinated effort between public and private sector.” – Eduardo Rojas

Significance of Documentation

- Develop goals and guidelines for documentation of Guyanese heritage sites (archaeological sites, buildings, districts, etc.) including historical research and recording and investigating existing conditions including technical studies.
- Utilize new technologies to assist with physical documentation such as laser scanning and other 3D imaging technologies. Integrate training into the documentation process.
- Systematic Approach to Preserving Vernacular Wood Structures
- Undertake inventory of existing, vernacular wood houses and structures.
- Based on existing procedures, establish guidelines for the documentation, planning, conservation, and maintenance measures for wood, vernacular buildings with practical, low-cost solutions for stewards.
- Capitalize on existing expertise and supplement with appropriate training.
- Develop outreach and assistance program for property owners.
Specific Goals at Policy and Project Level

Revise 1972 National Preservation Act of Guyana

- Membership of Board of National Trust of Guyana
- Inclusion of intangible heritage and ancient and archaeological sites
- Implementation of tax or other advantages to encourage private sector involvement in heritage conservation
- Consideration for changing definition of monument and how heritage sites are listed, i.e., historic districts
- Provision of safeguards on private and Trust ownership of heritage sites
- Definition of Minister’s ‘opinion’ should be more clearly defined

“With hope and aspiration, better will come.” – Nigel Hughes

World Heritage Nominations

- Historic Georgetown
  Focus on protection and management of proposed World Heritage Listing (urban context and individual monuments) at national level. Then next steps.
- Kaieteur National Park

City Hall Rehabilitation

- Implement immediate measures to address ongoing degradation: e.g., roof tarps and other temporary repairs to slow water ingress
- Document building and site (laser scanning and create drawings)
- Conduct a wood conditions assessment
- Analyze structural system and building envelope
- Map changes over time
- Determine program for future use and goals for rehabilitation and adaptation
- Develop project priorities, treatment options, and phases
- Entity (trust or corporation) to initiate and oversee process

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Determine program for future use and goals for rehabilitation and adaptation

Map changes over time

Analyze structural system and building envelope

Conduct a wood conditions assessment

Document building and site (laser scanning and create drawings)

Temporary repairs to slow water ingress

Kaieteur National Park

Introductory Remarks

Ms. Nirvana Persaud
Chief Executive Officer, National Trust of Guyana

This conference was decided by the National Trust as a boost to the heritage sector, particularly the tangible, built sector, as experts would gather to share knowledge and expertise that would aid the preservation, promotion and protection of Guyana’s heritage resources. Hence, the main focus, though not limited to, is on improving the conservation of our tangible built heritage.

The heritage sector as we know faces many challenges including, but not limited to, unplanned rapid urbanization, limited or no documentation of heritage resources, demands to modernize historic structures, the notion of in with the new, our with the old mentality and heritage being a ‘hindrance to progress’ among others.

Hence the seven thematic areas of Management and Policy, History and Theory, Documentation and Conservation, Heritage Sustainability, Heritage and Community, World Cultural and Natural Heritage and Economics of Preservation will see both local and internationals speakers sharing their respective experiences and perspectives on the notion of heritage preservation.

However, preservation is not cheap or easy but it is possible and worthwhile as our existence is more than economic growth. It is necessary to safeguard certain historic sites, features and icons regardless of the cost as ultimately the cost of their loss would be much more than the financial investments. Also too the task of heritage preservation is a huge one and must therefore involve everyone as we are all stakeholders in the process. This requires cohesive long term planning, dedicated efforts and most importantly unwavering support and cooperation from stakeholders.

Today’s actions will result in tomorrow’s heritage hence we must always be cognizant of the lasting effects of our daily decisions. I therefore reiterate His Excellency President David Granger’s charge to regional and municipal authorities to administer their own affairs and in so doing I urge serious attention be paid by these authorities to the various heritage sites and monuments located within their respective jurisdiction – decentralization, allowing communities to be involved in safeguarding what is theirs. The Australian authority puts it best “Built heritage within urban and regional neighborhoods is a key to the understanding of our shared history. It helps to define a sense of place, an identity for a community. It can contribute to feelings of connectedness, and community pride and confidence.” I know we can all relate to this.

What would Georgetown be without Stabroek Market or St. George’s Cathedral? I wonder what was the first impression of our visitors who got a brief tour of our city yesterday? Had we not had these tangible heritage what then would we identify with or showcase as ‘we own’?

It helps to define a sense of place, an identity for a community. It can contribute to feelings of connectedness, and community pride and confidence.” I know we can all relate to this. What would Georgetown be without Stabroek Market or St. George’s Cathedral? I wonder what was the first impression of our visitors who got a brief tour of our city yesterday? Had we not had these tangible heritage what then would we identify with or showcase as ‘we own’?

We know what we have inherited from our ancestors who would have performed their duty to ensure they left a firm foundation for us. But what are we doing to ensure we leave a similar or even better legacy for our future generations? Heritage is certainly a part of our daily lives and informs every facet of our existence. We are who we are as a result of our inherited culture. More importantly our built heritage reflects our skills, our growth and development and remain tangible evidence of our collective past. Are we not going to ensure we safeguard these treasures? Or are we going to allow ourselves to continue being oblivious, undignified and bring dishonor to our previous generation by neglecting, deliberately disregarding and losing these cultural assets?

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I am sure by now we are aware that we do not choose our heritage or our past but we certainly can use it as a guide to chart our future.
Our socio-cultural heritage for example is truly cosmopolitan given the combination of so many cultures, practices, rituals and traditions. Our festivals, celebrations, dances, music, food, recreational activities all reflect the multifaceted nature of this Guyanese heritage. Today, most Guyanese share in almost all religious, national and cultural festivities and observances: embracing our heritage and our Guyanese identity which we ought to be proud of.

The Trust over the years worked assiduously to promote many of our historic sites and to provide to the public an array of heritage materials so that our heritage everyone can understand, value and be encouraged to embrace their heritage, good, bad or indifferent. We have also started working with the young minds exposing tomorrow’s generation to the heritage sector. This is done through the Children’s Heritage Awareness Programme, a programme we are very proud of as I am certain the young group enjoys learning about their heritage in so many ways particularly when they experience the historic monuments and sites.

In fact the National Trust’s efforts to preserve our built legacy has resulted in us winning an international green apple award for the built environment and architectural heritage 2016 from the Green Organisation in the UK based on our submission of the Dutch Heritage Museum, the former Court of Policy Hall. The function of this structure has been changed to that of a museum, thus aiding its long term survival. The built heritage of many countries including Guyana is often a factor in tourist’s decision to visit. Guyana has a unique blend of wooden architectural heritage which must be protected by maintaining their heritage values even if we employ adaptive reuse strategies, as was the case of the Dutch Museum.

This is the second international award and recognition for the work of the Trust over the years. We won the Caribbean Heritage Protection Award 2013 from Caribbean Tourism Organisation in recognition of extensive efforts to protect Guyana’s unique cultural heritage – a major part of its sustainable tourism product. The agency also recognized the efforts of local stakeholders in sustaining aspects of Guyana’s heritage during its 40th anniversary celebration in 2012.

Today’s conference is another success also for the Trust as we have fostered linkages with the World Monuments Fund, a link we hope will remain for years to come as we continue our efforts in safeguarding and promoting Guyana’s heritage. Some of our visiting speakers are experienced in wood science, structural engineering, architecture, historic preservation and management, heritage economics among others. Our local experts are also experienced in similar fields and together I am confident we will have a successful 3 days forum with realistic outcomes that would aid in in moving the heritage sector forward.

I wish to thank everyone for supporting our work by taking the time to be with us today. I urge that you participate in the discussions throughout the course of the forum. Your feedback is important to the dialogue. I thank all those who have accepted my invitation to in one way or another contribute to this conference. It is indeed a motivation for my young team and I. Thanks to my staff and those of the World Monuments Fund for working with me to bring this conference to fruition. I request the media to make a special effort in covering this international heritage conference.

As I close I ask that we take stock of where we came from, where we are and where we are going. I urge that we make a conscious effort to learn more about our heritage and pledge to leave a legacy which our future generations will be proud of.

Thank you.

Ms. Norma Barbacci
Program Director, World Monuments Fund

Almost two weeks ago, on May 26th, Guyana celebrated the 50th anniversary of its independence and the event brought back scores of Guyanese living abroad, many from my own neighborhood in Brooklyn, New York.

I am sure a good time was had by all, but I also believe that many of the returning diaspora came back thinking of investing in the future of their country.

As a representative of the World Monuments Fund, an international advocacy and preservation organization, my message today is simple: invest in your future by investing in your past.

During the next three days, a group of Guyanese and international experts will discuss heritage management, policy, history, preservation theory, documentation, conservation, sustainability, community participation, cultural and natural heritage and the economics of preservation.

The National Trust of Guyana, our local partner in this initiative and the World Monuments Fund, hope their presentations will be useful to those professionals and authorities who will be shaping the future of Guyana, by providing recommendations and presenting applicable examples on how to preserve the cultural and natural heritage of this young country and how to turn it into an engine for economic development and a resource for improving the quality of life of its people.

We would like to welcome all of you to this exciting conference and encourage you to establish lasting professional relationships across professional disciplines and international borders, so we can all be part of a global network working together in the preservation of Guyana’s heritage for the enjoyment of future generations of Guyanese and the world.

Thank you.

Honourable Mr. Perry Holloway
US Ambassador to Guyana

Prime Minister and First Vice President, the Honorable Mr. Moses Nagamootoo, Minister of Education, the Honorable Dr. Rupert Roopnarine, Minister within the Ministry of Education, Ms. Nicolette Henry, Chairman of the National Trust Board, Mr. Lennox Hernandez, Chief Executive Officer, National Trust of Guyana, Ms. Nirvana Persaud, Members of the Press

I would like to thank the National Trust of Guyana for inviting me to provide brief remarks today. I am honored to be here among such a distinguished group of people representing a cross-section of government, academia, the private sector, and non-governmental organizations.

I would also like to recognize and thank the World Monuments Fund for sponsoring this event as it is a wonderful opportunity for all of us to gather to discuss the importance of preserving the cultural heritage of Guyana in particular, and other countries of the world in general. As a U.S.
organization, I am proud of the work you do to save the world’s most treasured places. Your work in Britain, France, India, Italy, Peru, Spain and other countries is nothing short of spectacular.

As some of you may know President Obama just last week proclaimed June to be National Caribbean-American Heritage Month. He eloquently stated that, “The dynamism and diversity of Caribbean Americans have contributed to our Nation’s story in extraordinary ways. We celebrate the contributions of our Caribbean-American brothers and sisters, and we reflect on how they have bolstered our country and enriched our traditions. Let us reflect upon the diversity of experiences that unites us as a people.”

The President further stated that ‘the bonds between the United States and the Caribbean remain strong. Both rooted in similar legacies – of trial and triumph, oppression and liberation – our narratives have advanced on a similar path of progress, driven forward by our shared dedication to fostering opportunity and forging a brighter future. The United States is committed to working with the nations of the Caribbean to advance security, liberty, and prosperity.’

In terms of what we at the U.S. Embassy are doing now in this area, I am hopeful that at least one of the two proposals we submitted to Washington, under what is called the Ambassadors Fund for Cultural Preservation, will be approved. We requested separate funding to repair the iconic Stabroek Market Clock, and to restore the Lighthouse near the Marriott that has been standing tall since 1806. I can tell you that I personally went to the top of both buildings - yes all 138 stairs of the Lighthouse – and the view is magnificent. The idea is to repair one or both of the structures and then charge a modest fee for access to the top. Those funds generated by the local or national government would be used to maintain the structures. As is the case with many preservation projects, sustainability is critically important.

A few years ago we had the pleasure of working with the National Trust to submit a proposal for the restoration of City Hall, and the following year we requested funding to preserve indigenous languages in the Rupununi. Unfortunately the worldwide competition was stiff, and we did not get the responses we were looking for. It is my hope that the third time will be the charm. It would be fitting, as we celebrate Guyanese Golden Jubilee and the 50th year of diplomatic relations between the U.S. and Guyana that we receive funding for one of our proposals.

Thank you.

Honourable Ms. Nicolette Henry
Guyana Minister within the Ministry of Education

I must first of all congratulate the National Trust of Guyana for initiating and bringing to fruition the Georgetown International Heritage Conference. I am pleased with the level of effort they have made towards making this forum a reality. I also wish to thank the World Monuments Fund organization for supporting this initiative and collaborating with the National Trust to safeguard our nation’s heritage. I am aware this is the first time you have worked with Guyana as a result of the efforts of the National Trust. Let me say welcome to our beautiful land of many waters, all of you coming here for the first time but I am certain it would not be the last as our uniqueness as a people as a nation will cause you to return.

As we know the diverse origins of the peoples who came to Guyana during the periods of exploration, conquest, settlement and subsequent economic development have contributed to the shaping of Guyana’s historical landscape. Our heritage is comprised of the joys and sorrows of our ancestors, their struggles and their achievements, their way of life and their cultural roots which they have placed importance to and have left for our guidance and understanding. Learning about our heritage helps us become more keenly aware of our own roots and appreciate the wealth of other cultures and peoples.

This conference certainly comes at an important time in our nation’s development having just celebrated our Golden Jubilee of Independence May 26, 2016 under the theme Reflect Celebrate Inspire. Indeed we reflected and celebrated on the journey we took for the last fifty years as a people, as a nation. Now as we look forward to the next fifty years we must ensure that our contributions to preserve, protect and promote this country’s rich and diverse heritage are beneficial to our future generations. We must ensure that our efforts count, that our actions are positive and that all we do is done in a sustainable manner. The built environment is actually the tangible evidence of our growth, development and ingenious skills. These historic structures today were once vibrant places similar to our contemporary societies and we must ensure our society is aware of their heritage.

The involvement of children is important to this process as they are the future stewards of our legacy. The National Trust’s Children Heritage Awareness Programme which was initiated in 2011 is an excellent programme for the 8-11 age group as it exposes the young mind to various aspects of Guyanese heritage and provides a practical hands on experience of working with heritage. To the parents who showed an interest in having your child be part of such a programme is admirable and encouraged. To the children I say thank you also for being part of this programme and for the continued support towards the work of the National Trust despite your school demands. We must educate our young generation if we are serious about cultural heritage reform and improvement.

As the famous Marcus Garvey’s expressed a people without knowledge of its heritage is like a tree without roots hence ensuring our new generation is taught at an early stage about their heritage. We all have aspects of our history we may not like, we may not want to embrace but these are all part of who we are today.

The poem – heritage – that we heard recited by our children indeed captured the sentiments that we are indeed the custodians of the this nations heritage we were left by our predecessors but more importantly it asked the serious question of what are we going to leave for the next generation? Is it ‘crystalline, health-giving fountains or gutters of shame?” I shudder to think it’s the latter. We must therefore make every effort to know our heritage, to embrace our heritage, to be proud of our heritage and to want to ensure it is kept in a manner befitting our children and their children’s children.

The seven thematic areas Management and Policy, History and Theory, Documentation and Conservation, Heritage Sustainability, Heritage and Economics of Preservation outlined in the programme would generate discussions on heritage, in this case tangible heritage both cultural and natural. But I request that after the anticipated discussions we can all pool our thoughts toward realistic outcomes that can be considered for implementation in improving the heritage sector and the way we manage and protect our heritage resources. It is important for us to care for our heritage sites and monuments as they are landmarks in our legacy.

I am pleased with the supporting heritage display mounted on the ground floor as this compliments the conference since it showcases aspects of our nation’s heritage – just a mere
glimpse of this rich, diverse and colourful legacy we are so proud of. I urge everyone to take a look at these exhibits that feature our people, petroglyphs, forts, monuments, folklore, proverbs, architecture, conservation among others and allow yourself to reflect celebrate and be inspired as this is ‘we own’ as the popular Dave Martins just sang.

I wish to acknowledge the National Trust’s recent achievement; winning of an International Green Apple Award for the Built Environment and Architectural Heritage 2016 from The Green Organisation in the UK. This is the first for Guyana and the category. The Trust submitted its winning piece against more than 100 other nominations worldwide. Its successful application focused on the Dutch Heritage Museum (Court of Policy), a National Monument under its care.

This is their second international award in three years as they were winners of a special Caribbean heritage protection award for 2013 in recognition of the extensive work it has done over the years to protect and promote Guyana’s unique cultural heritage which is a major part of its sustainable tourism product.

Apart from this conference and some of the exhibits you will also see the many publications done by the National Trust of over the years on historic sites and monuments, their work and general information on heritage and preservation. The agency has strived and continues to strive to preserve the many heritage sites and aspects of heritage for the benefit of our present and future generations but it is still a huge and no doubt challenging task amidst the rapid pace of continued progress and development. While this is in no way detering such a vision it must not be construed that heritage preservation and sustenance in any way stands or aims to stand in the way of progress and development instead it must openly embrace our cultures, practices, traditions, know-how, skills and knowledge in an effort to ensure and assure further progress and development. In other words build upon what we have inherited and leave behind something tangible for our generations to also treasure as their legacy. We often admire this very same thing overseas without reflecting that we have our own unique cultural and natural heritage at home.

Notwithstanding all our strengths we have lost and continue to lose aspects of our inherited legacies due to lack of knowledge, appreciation, fires, neglect, desecration and blatant disregard for our past. Over time many of our important structures have been lost with only fading memories.

Finally I urge the National Trust to continue promoting and preserving our nation’s heritage amidst the many challenges. Heritage is the business of all of us and we must pledge to do more. I say thank you National Trust for organizing this conference. I know the small and young team worked extremely hard on this. Equally I express my appreciation to the world monuments fund and their visiting team for seeing the value in our heritage and for cooperating with the National Trust with this conference. I note the packed schedule but I hope you will get some time to see and experience some of our Guyanese cultural heritage. I wish you a successful conference and look forward to the outcomes.

Thank you.

Honourable Dr. Rupert Roodnarine
Minister of Education

I wish to begin by expressing my congratulations to the National Trust on hosting this conference and the World Monuments Fund in partnering with the Trust on this event.

It is of course timely and fitting that we started out the entertainment component of this event with Dave Martin performing his truly Guyanese classic, the one song that I can think of that unabashedly celebrates our heritage, Is We Own.

Umana Yana is we own indeed, and it is unfortunate that while it has been rebuilt, it is not ready to host at least part of this conference’s proceedings. Another perhaps obvious irony is that despite the National Trust and the World Monuments Fund having connected over the urgency to preserve Georgetown City Hall as a cultural heritage site, the building which many of you, our esteemed guests, had the experience of touring this morning, could not have hosted at least the opening of the event.

Even as I applaud the heroic efforts of CEO Nirvana Persaud and her team at the National Trust in both the tremendous effort this conference must have taken, as well as the invaluable work they have done over the years, I have to acknowledge that the state mechanisms for identifying and preserving our built heritage in particular have been far from ideal over the years. The absence of protocol to preserve an inherently fire prone heritage site and inaction as the most historic building in our capital city deteriorates both reflect the sort of gaps in cultural heritage policy that should not exist in as cultural rich a society as ours.

We live in an era when cultural conflict, manifesting itself in the extreme as open warfare, is resulting in the destruction of invaluable built heritage and artefacts, much of it hundreds, sometimes thousands, of years old. Whether it is the deliberate efforts of ISIS today in Libya or the collateral damage caused by military contractors during the invasion of Iraq ten years ago, cultural heritage is often an undocumented casualty of war.

In Guyana, in the absence of armed conflict, in the absence of cataclysmic environmental disasters, we have no excuse not to come up with comprehensive systems of preserving both our tangible and intangible heritage, the true wealth of this country.

This conference comes at a time when the government of Guyana is in the midst of creating and tabling a national cultural policy and I am happy to see that the programme, while focusing primarily on tangible cultural heritage, also necessarily delves somewhat into the intangible. Indeed, there are inevitable areas of intersection, for example that which will be covered by Major-General Joe Singh and representatives of the Wai Wai community; indigenous craftsmanship and the reconstruction of the Umana Yana. One of my commitments, as a projected outcome of a completed policy, is the creation of a mechanism, or perhaps the expansion of the remit of the National Trust, to focus on preserving our intangible cultural heritage, particularly preservation and active use of our indigenous languages.

Indeed, over the next two years, and beyond, I can assure you that culture, from both a policy and programme perspective, will increasingly occupy centre stage in the government of Guyana’s sustainable development plans. We will be examining the implications of cultural practices on our interaction with the natural environment in the era of climate change; the role of culture in how we have defined citizenship from the independence movement to now, and how we can redefine citizenship in a world of shifting, almost fluid demographic movement; and finally, how we integrate culture into our education system so that we can instill in our children a sense of value with regard to rich cultural heritage and the openness of mind to celebrate the resulting diversity. This is of course in addition to concrete initiatives in the areas of cultural heritage preservation and creative industry development.
Last week, our commemoration of our 50th Independence Anniversary reached the apex of the celebratory aspects of the planned activities. As the year closes, it is initiatives like this one that will be critical in helping us to reflect on our identity as a people, and to inspire the concrete steps we will have to take to give life and action to policy. I am happy that the plan is to record, and I would also hope to publish, the presentations coming out of this conference. As I am probably now in danger of usurping the keynote address from the Honourable Prime Minister, I hereby take my leave and look forward to observing at least some of these riveting presentations.

Thank you.

Honourable Moses V. Nagamootoo
Prime Minister & First Vice President

My friend, Chairman Nigel Hughes, Speaker of the National Assembly, First Lady Sandra Granger, Ministers Hon. Dr. Roodnarine, Dr. Nicollete Henry; Ms. Garrido-Lowe and Mr. Sharma, Excellencies and Members of the Diplomatic Corps, Ms. Nirvana Persaud, CEO of National Trust of Guyana, Lennox Hernandez, Chairman of National Trust Board, Ms. Norma Barbacci, Program Director of World Monuments Fund, Honoured guests, special invitees, including members of the media, Ladies and Gentlemen,

Had I known that I would have heard such rich contributions in speeches, songs, steel pan and poetry at this Opening Session, I would not have been up until 1 o'clock this morning to prepare these speaking notes. I would have been pleased to come here and simply say, “I declare this historic conference open.”

But I am here not on my own personal behalf but that of the Government of Guyana and on behalf of President Granger. So, there are a few words that I would like to share with you, even if this over-lap with what has been said already.

I would have wished that His Excellency, President David Granger, were here to give us his perspective, as an historian, on the need for the restoration of our beautiful Guyanese heritage. It was upon his initiative that, not without criticisms and objections, the historic Stabroek Market Square has been restored to some semblance of orderliness. It was as a result of his perspective, as an historian, on the need for the restoration of our beautiful Guyanese heritage.

Last week, our commemoration of our 50th Independence Anniversary reached the apex of the celebratory aspects of the planned activities. As the year closes, it is initiatives like this one that will be critical in helping us to reflect on our identity as a people, and to inspire the concrete steps we will have to take to give life and action to policy. I am happy that the plan is to record, and I would also hope to publish, the presentations coming out of this conference. As I am probably now in danger of usurping the keynote address from the Honourable Prime Minister, I hereby take my leave and look forward to observing at least some of these riveting presentations.

Thank you.

Honourable Moses V. Nagamootoo
Prime Minister & First Vice President

My friend, Chairman Nigel Hughes, Speaker of the National Assembly, First Lady Sandra Granger, Ministers Hon. Dr. Roodnarine, Dr. Nicollete Henry; Ms. Garrido-Lowe and Mr. Sharma, Excellencies and Members of the Diplomatic Corps, Ms. Nirvana Persaud, CEO of National Trust of Guyana, Lennox Hernandez, Chairman of National Trust Board, Ms. Norma Barbacci, Program Director of World Monuments Fund, Honoured guests, special invitees, including members of the media, Ladies and Gentlemen,

Had I known that I would have heard such rich contributions in speeches, songs, steel pan and poetry at this Opening Session, I would not have been up until 1 o’clock this morning to prepare these speaking notes. I would have been pleased to come here and simply say, “I declare this historic conference open.”

But I am here not on my own personal behalf but that of the Government of Guyana and on behalf of President Granger. So, there are a few words that I would like to share with you, even if this over-lap with what has been said already.

I would have wished that His Excellency, President David Granger, were here to give us his perspective, as an historian, on the need for the restoration of our beautiful Guyanese heritage. It was upon his initiative that, not without criticisms and objections, the historic Stabroek Market Square has been restored to some semblance of orderliness. It was as a result of his passion to identify with our Caribbean and define ourselves on the Atlantic.

At Cabinet we spend long hours correcting the records, getting each word right, as we do not wish to pass on to the next generation things that we should have gotten right today. So, in this regard, we have to get our heritage right today.

On May 26 last when Guyana celebrated 50 years of Independence, All Guyanese embrace Independence as our heritage. “Is we own,” as Dave Martins reminded us.

But our heritage predates independence. It encompasses our culture, our natural resources, our historical sites, our monuments, our buildings.

My wife and I have recently moved into one such heritage building, styled ‘the official residence of the Prime Minister.’ We determined not to live there until and unless it was renovated and restored not only for human habitation but as a heritage building.

This elegant, wooden building had seen hard times due to neglect. It took one full year to do essential repairs in accordance with specifications by the National Trust. Today, along Main Street, The Residence, still a work in progress, stands proudly amongst our magnificent, wooden buildings, I invite our guests to visit this majestic structure.

With Independence, we dutifully salute our National Flag, the Golden Arrowhead; and we sing our National Anthem with patriotic fervor and gusto. We identify our freedom fighters with Independence and we do remember them.

In similar vein, we must recognize the creators of architectural gems such as the 1889 Georgetown City Hall, the st. George’s Cathedral, the Victoria Law Courts and other historical landmarks. We must protect and preserve them as our heritage.

It was for this purpose that the National Trust of Guyana was established in 1972. The enabling act, as was stated by CEO Nirvana Persaud, provides for the preservation of monuments, sites, places and objects of historic interest or national importance.”

The Trust has undertaken work to document Guyana’s built heritage, and has recorded some success.

Last night, I have looked at your packed programme and observed that it includes topics such as “Wood in Historic Preservation” and “Economics of Preservation.”

Our National Trust is dedicated to boosting our wooden heritage sector, but its labour would be circumscribed by the economics of doing so.

In this regard our Government welcomes this Conference not only to share knowledge and expertise to effectively preserve our heritage resources, but to source funding to restore the grace and beauty of our heritage edifices.

Our Government basks in the expectation that one day Georgetown would be counted among the heritage capitals of the world. It must be restored to its pristine beauty, building by building, block by block, and must lead the way in being transformed into a green and clean Capital.

As you know, the heritage sector in many developing countries faces many challenges including absence of zoning plans, lack of documentation of heritage resources, etc. Modern developers see historic structures as objects that they should “tear down.”

We must resist the easy temptation to tear down our heritage. We must restore our pride in who we are, what we have built, and show-case our achievements.

We are happy to have others who believe in us, and are willing to help. We highly appreciate World Monuments Fund for including our historic Georgetown City Hall on their 2014 World Monuments Watch, which calls international attention to at-risk cultural heritage sites around the globe. This was the first time a site in Guyana was included on the Watch, to garner local
and international attention and support to help preserve this remarkable architectural building.

Beyond our national borders, we consider the world as Our I-Home. We have a proud heritage and the Watch List of the World Monuments Fund reflects our common interest in promoting a global heritage sector and to preserve the architectural genius of humanity.

It was with this in mind that Guyana had gifted one million acres of pristine forest as a conservation site, named Iwokrama. Guyana will release another one million acres, and more if needs be, to supplement this green lungs, to leave a new heritage for all humanity.

While we must renovate our ancient buildings, we must also open new parks, green parks, and playfields, for our children; for our elderly to breathe fresh air, and to live out their lives in leisure. We must lend personality to our lanes and roadways. We must move away from dependence on fossil fuel, and provide our roads, buildings and offices with green, alternative, energy. This is the new heritage that we must bequeath to the future generations.

But for now, we must devote attention to our heritage stock from the past. Our Government therefore supports all initiatives of this Conference to:

- Build awareness among the Guyanese people and corporate citizens to join in protecting and preserving our monuments and heritage generally;
- Support the thrust by Central Government and Municipalities to safeguard our heritage buildings, sites and monuments and to promote national pride in what we own, in the same way that we have stirred so much pride over things Guyanese during this Golden Jubilee of Independence year.

We hope to revitalize the scope of work to be undertaken by the National Trust and to ensure that it reaches out to the newly elected Town and District Councils to take responsibility in their respective areas for heritage resources.

We commend the Trust for winning, as we learned just now, an International Green Apple Award for the Built Environment and Architectural Heritage 2016 from The Green Organisation in the UK, coming three years after winning the Caribbean heritage protection Award.

I wish all participants a fruitful exchange and renewed conviction that your combined efforts would help save the treasures of our heritage, whether in the form of wooden buildings, monuments and sites, and at the same time, to make our heritage stock into a unique, sustainable tourism product.

Personally, for me, it is an honour to be with all of you who have a dedicated mission to protect and preserve mankind’s dearest possession, Our Heritage, Our Life, Our Planet!
Management of the Cultural Environment
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Abstract
Management is the key to realising the potential of any heritage assets. Much good work has been done to define management systems for different purposes. In the field of management of cultural heritage, UNESCO, ICOMOS-UK, ICCROM, IUCN, ICOMOS and ICOMOS Australia have over the last 30 years produced advisory documentation on every aspect of managing the cultural heritage.

Heritage assets may be tangible or intangible, moveable or immovable, artistic, social, cultural, scientific, historical, archaeological, natural, in groups or single works of man. They are the outcome of economic, social, scientific, physical, political, commercial and climatological factors. Their values as perceived by stakeholders are key to being given sustainable support. But perception of values of whatever grade of heritage is the product of research, interpretation and presentation.

I illustrate briefly these concepts and give examples of different circumstances where effective management of heritage is promoted or prejudiced by external pressures. Inadequate support is often given by management strategies to interpretation and presentation of heritage assets and the values ascribed to them.

Yet much expense is incurred in conservation, rehabilitation, planning of roads and services infrastructure, land use, architecture and artistic objects and ensembles without putting these actions into a holistic context. Of course there are many good examples of interpretation and presentation, but also many serious omissions in heritage properties.

Good management recognises that understanding the values of heritage assets has a wider purpose in promoting cross-cultural understanding or at least acceptance and awareness of cultural values and difference. Forty-eight years ago I founded a multi professional practice in the belief that single sectoral solutions were inappropriate for our world of diverse skills and stakeholders. Now today in our globalising world where we travel extensively and our different cultures contribute to common existential challenges found in all of our environments, the conservation requirements of the tangible cultural environments.

The principles of conserving the large scale environment are the same as for individual buildings and are only slightly different for museum objects. My colleagues do not always think this is true as they see their special niche of skills as unique, and sometimes cannot share principles. I counter with the argument that the underlying processes and principles of evaluation, conservation, and reuse applies across the different disciplines. I will not fully consider in this paper the intangible values play a vital part in interpreting presenting and defining cultural environments, of the performing arts, and the conservation of customs beliefs and traditions.

The principles of conserving the large scale environment are the same as for individual buildings and are only slightly different for museum objects. My colleagues do not always think this is true as they see their special niche of skills as unique, and sometimes cannot share principles. I counter with the argument that the underlying processes and principles of evaluation, conservation, and reuse applies across the different disciplines. I will not fully consider in this paper the intangible cultural environments, of the performing arts, and the conservation of customs beliefs and traditional skills. But intangible values play a vital part in interpreting presenting and defining the conservation requirements of the tangible cultural environments.

Many good sources exist for guidance on Management of the Cultural Heritage, for instance:

- UNESCO's 2013 document "Managing Cultural World Heritage," the Operational Guidelines of 2013 and
- ICOMOS-UK's more summary note "Management of the Historic Environment."
- The Burra Charter by Australia ICOMOS
- The principles for the Conservation of heritage Sites in China by the State Administration

Over the last 50 years, management of the built environment and its changes has become an important consideration in co-ordinating and guiding planning and design for conservation and reuse. The modern world is more complex and requires safe and economic achievement of its plans. To do so leadership has to delegate and build teamwork whether we are dealing with cities or the built environment. The political debate is whether the best can be achieved by the closed communist or fascist world where the individual cannot choose, or by the open societies where we can learn, invent and take responsibility for our different skills.

The Management process is an important skill. It applies to each of us individually, and to all in authority over us. It relates to a constant process that we must consider for all challenges that we face on a daily basis. It is well illustrated by the following sequence of action: Identification of the need, research and understanding of all component parts, assessment of the resources and capacities, development of a plan of action and required outcome, organisation and detailed planning, management and business plans, contracting, monitoring, adjustment of the plans to assure intended desired outcomes.

I am going to outline principles for management of the cultural environment, based upon the good work of UNESCO, ICOMOS-UK, ICCROM, IUCN, ICOMOS headquarters in Paris and ICOMOS Australia. These and many other national agencies and universities have produced advisory documentation on every aspect of managing the cultural environment.

The cultural environment may be tangible or intangible, moveable or immovable, artistic, social, cultural, scientific, historical, archaeological, or natural, and may be in groups or single works of man. These qualities are the outcome of economic, social, scientific, physical, political, commercial and climatological factors. Their values as perceived by stakeholders must be understood and defined. They are the key to being given sustainable support. But perception of values of whatever grade of heritage is the product of research, interpretation and presentation and this carries educational value to the modern world.

The principles of conserving the large scale environment are the same as for individual buildings and are only slightly different for museum objects. My colleagues do not always think this is true as they see their special niche of skills as unique, and sometimes cannot share principles. I counter with the argument that the underlying processes and principles of evaluation, conservation, and reuse applies across the different disciplines. I will not fully consider in this paper the intangible cultural environments, of the performing arts, and the conservation of customs beliefs and traditional skills. But intangible values play a vital part in interpreting presenting and defining the conservation requirements of the tangible cultural environments.

Good management recognises that understanding and presenting the values of heritage assets has a wider purpose in promoting cross-cultural understanding or at least acceptance and awareness of cultural values and difference, and in this sets the context for equitable relationships in our societies.

Many good sources exist for guidance on Management of the Cultural Heritage, for instance:

- UNESCO's 2013 document "Managing Cultural World Heritage," the Operational Guidelines of 2013 and
- ICOMOS-UK's more summary note "Management of the Historic Environment."
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Hankey
for Cultural Heritage (SACH) and the Getty Conservation Institute.

We must not be overawed by this range of advice. Their threads have slightly different perspectives but the structure of their management actions and plans are substantially the same for any culture, context, or country. I will therefore set out the themes and actions that are common to most plans.

1. Key Principles

- The historic environment contributes to the distinctive character and value of a place.
- The physical and cultural features of the historic environment are a non-renewable resource. For its use to be sustainable, it must be managed so that it meets present-day needs, and also allows it to meet future requirements in ways which do not unduly reduce its historic or cultural value and significance.
- Understanding the values and significance of the historic environment is essential if we are to conserve that significance.
- The historic environment is an asset conserved for both public and private benefit, and may be protected through local custom or legislation.

2. Management Strategies

Management strategies should identify the issues, set out the desirable long term vision with medium and short term aims, develop and give reasons for appropriate solutions, and provide frameworks within which both long and short term policy decisions can be taken.

Within the management strategy, there should be more detailed plans of action. They should identify all aspects of the historic environment that present and future generations will regard as significant. All management strategies and plans should be economically viable, widely accepted, and achievable within specified time scales in the context of the available technical and financial resources, and show how the cultural environment will be protected from irreversible damage or loss of value and significance.

Sustainability of the historic environment will be improved if all the stakeholders have the opportunity to learn of its value and significance, understand the physical, social, financial and economic benefits and constraints, and if they are able to give active support towards funding the necessary operation and maintenance. To achieve this, the process of strategy preparation should be both consultative and educational, identifying the issues that need to be addressed and gaining the necessary support. This process is good governance requiring consultation, participation and consensus among the stakeholders.

A management strategy is only a means to an end, and not an end in itself. The support gained through the preparation process must be translated into plans for implementation.

3. Who should be involved?

Stakeholders will need to be involved through a consultative process, and the management structure should reflect this. The participation of Government officers is usually essential, where national or local assets are involved. The person or group who should take the initiative in preparing a strategy or a plan will vary from case to case:

- For a site in single ownership, the lead will sometimes be taken by the owner;
- For a town or village, the lead may be taken by the local administration;
- In other cases such as parks, protected areas or cultural landscapes, an appropriate public body such as a national park authority or a non-governmental organisation may lead the team.

Whoever leads, they should have an understanding of the range of skills required for the management, planning, design, construction, operation, maintenance, financing and funding of the historic environment. Professionals and experts will usually be needed to advise the writer of the plan, who should also have the ability to incorporate the essence of their different contributions and to resolve any conflicts.

A number of different methods for preparing strategies or plans could be used, but all should follow the same logical sequence of actions. These actions are set out as follows.

4. Developing a Management Strategy

The development of a strategy is essential for successful management of the historic environment. It ensures that conservation and economic issues are considered, that all stakeholders can be involved in the determination of its future, and that options can be properly considered.

4.1. The Management team

The preparation of a strategy or plan will require the formation of a management team. This will need to have:

a) A client, who may be an individual, or, for larger sites, a management committee representing the principal stakeholders. The committee will have a nominated chairman and/or spokesman, and members with an appropriate mix of skills. The client should articulate a clear set of goals.

b) A manager with a team of skilled people who are able to analyse and plan in accordance with the identified needs.

The range of skills required for the strategy must be appropriate to the scale and complexity of the site under consideration, and might include some or all of the following: archaeology, historical research, interpretation and presentation, architecture, social assessment, urban and economic planning, conservation, structural and services engineering, cost evaluation, analysis of markets and trends, business planning, project and operational management.

The development of a management strategy or plan should be a consultative process, in which all stakeholders and people who are directly affected are able to take part, and in which professionals and experts are able to offer authoritative advice. The process should be open and wide-ranging, and should, as may be appropriate, take into account social, religious, cultural, scientific, aesthetic, historical, archaeological, economic and financial considerations. This process will help stakeholders to appreciate the value and significance of their historic environment, and encourage them to participate in the process of developing suitable proposals for the future.

Since the historic environment is designated and often protected by local and national legislation, planning for any change will require early consultation with specialist representatives of the public administration and local stakeholders. Official agreements for the planning and construction changes to the site may be required.

5.2. The Management Process

The following logical process serves as a guide, and, while these essential principles for
development of the management strategy should remain constant, the detail may need to be adapted to the needs of each building, group of buildings and sites.

a) Site Description

First we must describe the site, identify and assess its cultural significance, and the values of the different interest groups upon which the significance is based. There may be many different values associated with the site and these may need to be ranked into a hierarchy.

This requires us to identify and record what exists, using a standard methodology, then to explain and understand the historic and cultural environment and its evolution, and to define its values and overall significance. All available evidence should be analysed and interpreted. Historical research, physical and social surveys may need to be carried out, and plans for archiving, disseminating, and sharing the records need to be made.

Our critical understanding of the facts and comparison with other sites will assist in the assessment of its cultural value and significance. People will place different values on the same historic environment. All environments, archaeological sites and landscapes, whether historical or not, have degrees of value and significance. These must be understood before options for future use can be determined. "Value" is also measurable in terms of the direct and indirect benefits that accrue. These principles for evaluation apply to the context of all new building and urban planning as well.

b) Assessment of the condition of the asset and its ability to adapt without significant loss of value and significance.

There may be pressures and constraints on the historic environment, which could lead to a loss of value and significance. These need to be identified and may include:

i. Physical decay through lack of funding, or lack of appropriate management and maintenance skills;

ii. Damage from human or natural environmental impacts, or from excessive use and wear;

iii. External threats arising from inappropriate adjacent land uses;

iv. The demands for new uses, and the adaptations required to satisfy them;

v. The limitations of the historic environment to adapt to development pressures.

The nature of the condition assessment will depend on the character of the historic environment. Different factors will be important for archaeological sites or cultural landscapes. For buildings or ruins, the condition assessment may need to cover a variety of factors and these are:

i. Identification of damage and its origins; the limits of structural and material strengths under static and imposed loading; the impacts of wear through use; the durability under different atmospheric conditions and type of use, and the adhesion to and compatibility with supporting materials and surfaces of all the existing materials and their finishes;

ii. The potential of the building or site materials to be conserved or altered, without loss of functional efficiency and without loss of value and significance, and to be in conformity with relevant construction or planning regulations when adapted to possible new use;

iii. The compatibility of the design with its setting, and the degree to which either can be restored, conserved and altered to suit future use;

iv. The ability of the historic environment to accept the introduction of modern and adaptable utility services without excessive impact on its historic value;

v. The costs of repair, conservation, alteration and long term maintenance of the original or adapted materials.

c) Assessment of the existing pressures and opportunities affecting the site

This addresses its management context, user groups, stakeholder interests and legal controls, that affect the significance of the site, and other forces for change. There may be constraints against change such as:

i. The incompatibility of the values and significance of the historic environment, the urban or rural setting with the intended new use of the asset;

ii. The limitation of skills available for research, planning, conservation, design, construction, interpretation and presentation, management, operation and maintenance;

iii. The time and cost requirements of education to achieve sustainable use through adequate management, operation and maintenance activities, of providing implementation skills, and of promoting awareness through the media, academic and technical institutions;

There will be forces for change and opportunities for development such as:

iv. The demand for new/adapted uses that can be accommodated to satisfy that demand;

v. Opportunities for beneficial use and change such as adaptive re-use and conservation-led regeneration;

vi. Opportunities for new and complementary uses that bring revenues and benefits to the community and to the operation and maintenance of the historic environment;

vii. Opportunities for education and tourism through improved interpretation and presentation for the public.

d) Development of conservation policies

The governing principle of the Conservation Policy is the need to protect and enhance the significance of the site. Limits of potential change should be identified which will cause the least loss of value and significance, while also ensuring sustainability. In some cases this may require no change at all. This information should be brought together into a statement of the conservation policy giving a description of the historic environment and setting out the findings of the sections a) b) c) above, and:

i. Policies for retaining value and significance of the cultural environment (buildings and their details, buried archaeology, historic and designed landscapes, urban areas, social and cultural land uses, wildlife and ecology) must be identified for any future management, and in accordance with all relevant legislation, government guidance, local or structure
ii. The principles must be stated for repairing, conserving, maintaining and reusing the asset; and also the principles to be followed for land-use and urban planning, both within and in the surrounding setting of the historic environment.

iii. The conservation policy should be comprehensive and cover all significant aspects of the site. It should be understood by all the stakeholders and should be accepted and adopted by the relevant planning authorities.

c) Evaluation of the options for managing the pressures

Once the conservation policies have been agreed and the forces for change, the constraints, and the opportunities have been assessed, it will be possible to develop various options1 for defining detailed policies for all aspects of the site’s management. This will require an iterative process, since countering some of the threats may create new opportunities, while exploiting some of the opportunities may put the significance of the cultural and historic environment at risk.2

Now we must evaluate the options for managing the diverse pressures affecting the site’s significance; the demand for future use and of the potential forces for change; the possible adaptation for future use. We must identify the preferred option for each policy area; and in doing so, define adequate evaluation of budgets, costs and business plans. We must balance expenditure with revenues, benefits, risks and constraints; and finally we must confirm the preferred strategy.

Our policy options must be effective and appropriate to the local social and political conditions, to the availability of different skills, and to the financial and economic constraints.

It may be necessary to research and define environmental and heritage impact assessments, in advance of development or conservation works, and to produce strategies that minimise any adverse effects.

As far as possible, the stakeholders should be involved in the development of the various options. Their understanding of the economic and social benefits will promote financial, social and political support for the strategy.

The process of examining options will lead to a series of specific preferences with their feasibility, and, from this list, one will become the preferred option upon which the management and business plans can be assessed. Subsequent detailed development of the preferred option, after the management strategy and business plans have been approved, will be required.

f) The Management Strategy

The management strategy should contain a brief summary of all the above considerations. It should state the preferred policies for each aspect of the site’s operation, maintenance and development, and should describe requirements for:

i. Conservation and maintenance and, if change is involved, the planning, design and construction requirements.

ii. The Institutional and management organisation; the key managers and their roles; the programmes for implementation of the policies, and for the subsequent works, equipment, staffing, operation and maintenance.

iii. How the inventory of the asset is to be created, its methods of recording and documentation, its duplication, archiving, and administration.

iv. The phasing of the plan of work for large sites requires an overall vision of how the site should change. It will develop prioritized work programmes, and identify individual projects. It will take into account available resources of skill, technology, and materials, benefits and constraints, budgets, costs and business plans, and must balance expenditure with funding.

v. Funding may (or may not) be central to the choice of the preferred strategy. Expenditure on essential maintenance may well be justified, even if the long-term future of a site is still uncertain. Some historic environments may be so culturally important that conservation is required by the authorities, even if in the short term no direct or indirect financial or economic benefit can be identified. For most historic environments, however, it may be essential that the support from the stakeholders and the public is adequate to sustain the continued preservation, management and use of the asset. It may be necessary to give priority to work that will generate income to help finance the rest of the programme, or to provide basic infrastructure, or to respond to external development priorities.

vi. New works requiring change should normally be undertaken only if the consequent revenue generation and annual expenditure on operation and maintenance can be met, and if the viability of any work to the historic environment is proved. If the above calculations produce an acceptable level of risk and benefit, the preferred strategy may be confirmed.

Where a strategy requires broad support, its justification by means of adequate management and business plans may be essential for promoting that support. A site may also be of national importance, and yet be unable to depend upon direct revenues for its sustainability. In this case, where the risks are acceptable and its values and benefits can be realized, its significance and value to the community and to other stakeholders still need to be clearly expressed as the basis for the management strategy.

g) Identification of the ways in which the plan will be implemented

Any management plan for the cultural environment must state how and by whom it is to be implemented. A team with relevant professional skills should be set up to oversee its implementation. It needs to have sufficient institutional continuity to be able to take a long-term view, and to follow through the consequences of its decisions. Key stakeholders must be informed and consulted on all major decisions.

The following management framework should be used by the team for carrying out the implementation process and should be carefully defined in the plan itself:

i. Understanding the resource, the agreed policies, and the problems to be resolved.

ii. Planning the work and its programme of execution.
iii. Organizing people and tasks.

iv. Co-ordinating and monitoring the execution of the work, and recording, with reasons, the actions taken.

v. Regularly reviewing the resource, the management plan policies, and the resolution of problems, before further planning and programming of works.

It is a continuous process to manage the historic environment in a manner that does not diminish its value and significance. It will require preventive maintenance involving regular inspection and action, disaster drills, constant updating of records, and recording of costs for the benefit of future budgeting. The above items might form the basis for a Conservation Plan.

h) Monitoring and review of the plan

The management strategy or plan should indicate the practical steps, to achieve education and training of the management staff, regular monitoring the work of the administration, and to achieve the objectives of the management plan.

Management policies should never be considered as definitive. Regular monitoring and review of the strategy is essential. The strategy itself should define the methods that will be used to monitor its effectiveness, and they should, as far as possible, be related to the primary objectives of the plan. The strategy or plan should, therefore, be produced in a format that can be modified to adjust practice to contemporary and changing demands. Regular revision will ensure that it continues to meet current needs.

i) Research and Records

Proper understanding of all aspects of a site, and how it is to be used, is essential to satisfactory management and development. A research policy targeted at areas of information needed for managing the site should be developed as part of the plan. This will include operational research but should also focus on the nature and history of the site, since proper understanding of its values and significance is essential to management.

Surveys, designs, contractual documentation and management decisions, form part of the historic record. They should be created in a standardised manner and should be retained in an archive, accessible to the management of the historic environment. They should be available for the informed decisions of the public administration, and for the information and benefit of those concerned with the research, interpretation and presentation of the heritage. All implementation should be fully documented, since it is only possible to modify policies in the light of experience if interventions are recorded and the results are monitored. Documentary records are also essential to inform future attempts to evaluate the historic environment.

The records of all work undertaken to historic environments are most valuable to inform all subsequent works of maintenance and repair. Survey and photographic material, plans and contract details of all works should be archived. Essential documents for important sites should ideally be held in a digital, multi-media format. In view of the importance of making record documentation widely available, consideration should be given to ensuring access to archives, and publications on a web-site. Electronic records need to be backed up and stored in fire resistant archives.

j) Budgets, costs and business plans

The financial and management planning for the strategy or for an individual project may be critical to its financial viability, and will need to be based on proven assessment of the market, its trends, local competition, pricing and marketing strategies, and the demand for the intended use. The business plan must be founded on realistic data, stating how the strategy or project will be managed and carried out, what are the benefits, what will it cost, and how it will be viable, including any or all of the following:

i. The results of market research demonstrating the size and character of the market, its growth trends, the relevance of the project to the market; the opportunities, threats, and competition; the required pricing and marketing strategies; and the financial conditions under which the strategy or individual project should operate;

ii. The costs for all conservation, construction, operation, management and maintenance works, over the period required to meet financial obligations, and long enough to determine safely the viability of the investments, in the context of the markets, pricing trends, and the financial and fiscal conditions;

iii. The cultural, social, financial and economic risks; and the predicted impacts on, and the direct and indirect benefits to the social, physical, financial and economic environment arising out of the intended use;

iv. The realistic identification of the target sources and limits of funding through revenues, loans, grant aid or tax concessions, perhaps reflecting the many indirect benefits given by the historic environment to the local or national community, with contingency plans for all phases of the project;

v. The need to pay back loans or other capital within specific times and the consequential impacts on cash flow;

vi. Planning and phasing of works in relation to funding and project feasibility;

vii. Business plan budgets, cash flow requirements, cost control methods to be adopted, management policies for the works, and their subsequent operation and maintenance;

The Management team must obtain approval of the plan from the project’s sponsors and funding agencies.

k) Detailed project planning

With the approval of the management and business plans, contract documentation can now be drawn up for the detailed planning and design phases, for the obtaining of any necessary statutory consents for conservation, planning and construction, and for the subsequent phases of project preparation and implementation of works on site.

There should be adequate analysis of each of the project components within the policies of the agreed business plan, which should include as many of the following considerations as may be appropriate:

i. The detailed planning and design for adaptation or conservation within the terms of the Conservation policy;
ii. Due consideration for the nature of the market demand for the potential uses, for the potential costs and revenue generation arising out of those uses; this may well require extensive research;

iii. The nature, scale and impact of functions required, and in the case of tourist attractions arising out of the location, the facilities for reception, information, orientation, refreshment and health;

iv. The predicted audience and the nature of users and visitors, their language and educational attainment and the requirements for their appreciation of the historic environment;

v. Visitor or user number projections will impact the facilities this is especially important for tourist attractions;

vi. The requirement for and environmental impacts of traffic, water, drainage, gas, electricity, and refuse collection and other services infrastructure;

vii. The impacts on local employment;

viii. The requirements for project design, implementation, management and operation, and the availability of adequate skills;

ix. The outline costs and benefits of each policy for change to the historic environment, to the local area and its people, and the possible long-term social and economic impacts;

x. Any conditions for acceptability of the proposals to the stakeholders.

**Conclusion**

I suggest that teamwork and many skills are required in managing the cultural environment which belongs to many stakeholders in the community.

Most work on the cultural environment is done with a degree of responsibility given by the local or central government. It is done in the interests of the public and project sponsors, whose participation is essential as it is they who will support the conservation of the cultural environment and implementation of the future uses with their understanding and energies. But to have their support for the project, they have to understand the values of the cultural environment. It has to be interpreted and presented to them in a way that they can understand and identify with. These principles apply to all tangible and intangible cultural environments to different degrees.

Finally let us point out that the cultural environment is not for the elite; it belongs to all people.
References


The Heritage Lottery Fund. https://www.hlf.org.uk/


Management & Policy

Conservation Policy and Urban Heritage: An International Perspective
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Abstract
The talk discusses the sociocultural benefits generated by the material urban heritage that are important for the population and that support the community’s concern for its conservation. The rationale for adopting conservation policies. The analysis of the evolution of conservation policies in developing countries reveals differences in objectives, approaches and depth of commitment that: mobilize the interest and resources of different social actors, lead to the establishment of different institutional arrangements and to different outcomes concerning the efficiency and sustainability of the effort. The discussion reviews the validity and efficiency of contrasting approaches that range from the full conservation of the urban heritage to promoting its adaptive rehabilitation for contemporary uses.

Most countries are moving from the initial stages in the preoccupation for the material urban heritage—usually the concern of an elite with limited and non-sustainable interventions—to a stage where conservation becomes a concern of the government to protect this inheritance. In this later a stage the conservation policy gains in scope, capture public resources and becomes more sustainable. Developing countries are at different stages in this path with marked differences in results.

Countries that have succeeded in conserving their material urban heritage managed to engage the interest and resources of a wider variety of social actors like private sector property owners, investors, entrepreneurs, merchants, craft persons, households and consumers interested in the economic use values of the urban heritage. Attaining this stage involve having conservation policies and programs fully integrated with urban development policies and programs.

"Heritage is everybody’s business."
Ms. Sonya Roopnauth
Director of the Office of the Budget, Ministry of Finance, Government of Guyana

The practice of conserving urban heritage is well established and is making significant contributions to protecting the material capital inherited from previous generations although still retaining the ‘monument-and-its-surroundings’ focus recommended in the Venice Charter of 1964. This approach permeates the heritage conservation policies in many countries that still are in what Rojas and de Moura Castro call the phase where conservation is still the ‘concern of the elite’ and is also observable in those countries that moved to a more advanced phase that the authors call ‘a concern of the government’. In countries in the first phase, conservation policy focuses on preventing the loss of specific buildings or monumental areas threatened with destruction by real estate development pressures. These efforts are mostly funded mainly by private philanthropy and motivated by the interest to retain the heritage’s socio-cultural values that are of the interest the cultural elite and private philanthropists: fundamentally historic, aesthetic or religious values described in Table 1. Projects are carried out and financed based on a very asymmetrical relationship between the actors, because the beneficiaries, the community at large, and those who advocated the projects (the cultural elite) do not bear the conservation costs. This approach led to a somewhat arbitrary selection of interventions. The skewed project selection process and the lack of correspondence between those who benefited from the improvements and those who paid for them gave rise to the two principal shortcomings of the projects executed in this phase. The first is the limited scope of the conservation effort, which benefits few monuments, picked in accordance with the interests of a minority, and that are usually devoted to public uses with little capacity to sustain them. The second limitation is that the conservation effort is not sustainable because it relies mainly on the energy of the elite and the fickle tastes of philanthropists. Even with the stated limitations progress in the conservation of the urban heritage is observed as most of these countries passed historic heritage conservation laws or regulations. In Latin America this is the case of Argentina, Peru, Uruguay and most Central American countries.

Table 1. Sociocultural Values of the Urban Heritage

<table>
<thead>
<tr>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic</td>
<td>The building or site provides a connectedness with the past and reveals the origins of the present.</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>The building or site possesses and displays beauty.</td>
</tr>
<tr>
<td>Scientific</td>
<td>The building/area is important as a source or object for scholarly study.</td>
</tr>
<tr>
<td>Spiritual</td>
<td>The building or site contributes to the sense of identity, awe, delight, wonderment, religious recognition, or connection with the infinite experienced by both the community living in or around the site and those who visit the site.</td>
</tr>
<tr>
<td>Symbolic</td>
<td>The building or site conveys meaning and information that helps the community to assert its cultural individuality.</td>
</tr>
<tr>
<td>Social</td>
<td>The building or site contributes to social stability and cohesion in the community, helping to identify the group values that make the community a desirable place in which to live and work.</td>
</tr>
</tbody>
</table>

Source: Author elaboration based on Throsby, 2012.

Table 2. Economic Values of the Urban Heritage

<table>
<thead>
<tr>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>Direct worth of asset as a private good. Potential for residential, commercial, services, or other uses with demand in the real estate markets and for which consumers will be willing to pay a premium rent due to the heritage value of the asset.</td>
</tr>
<tr>
<td>Indirect</td>
<td>Value accruing to others (passive use)</td>
</tr>
<tr>
<td>Non-use</td>
<td>People value the existence of the heritage item even though they may not directly consume its services.</td>
</tr>
<tr>
<td>Option</td>
<td>People wish to preserve the option that they or others might consume the asset’s services at some future time</td>
</tr>
<tr>
<td>Bequest</td>
<td>People may wish to bestow the asset to future generations</td>
</tr>
</tbody>
</table>

Source: Author elaboration based on Throsby, 201

Some countries are in a second phase in the development of their heritage conservation policies where national and local governments take a more proactive approach and assume direct responsibility for heritage conservation through legislation and public investments. Progress during this phase, called ‘concern of the government,’ is in part the result of a more comprehensive valuation of heritage, which recognizes, in addition to the values that triggered involvement in the first phase, economic values like the bequest and option values (see Table 2). Countries in the second phase have established specialized institutions to monitor the application of legislation and the proper use of the resources the government devotes to conservation. Outstanding examples of this phase of the conservation effort are seen in Mexico, Brazil, and Colombia, where national governments established specialized institutions to assist states and municipalities in heritage conservation. England, France, Italy, and Spain are among the countries with advanced legislations and institutional structures for the protection of the urban heritage.2 The activities of governments led to financing more conservation projects than in the first phase however, faced with competing demands for scarce budgetary resources, most governments have found it hard to provide the volume of resources needed to conserve the urban heritage on a sustainable basis. Many conservation efforts undertaken during this phase have also been of limited scope and short-lived because the interests of those involved did not coincide completely: those who benefit directly from the conservation effort (the communities living in the urban heritage areas and visitors overlap only partially with those who bear the costs—the national or local taxpayers—and with the advocates of conservation, the country’s cultural elite.

Table 3. Cont’d.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Institutions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Department of Culture</td>
<td>INHA</td>
<td>Municipal Heritage Institute</td>
<td>Municipal Heritage Institute</td>
</tr>
<tr>
<td>Heritage Commissions</td>
<td>National Ministry of Culture</td>
<td>National Trusts</td>
<td>National Trusts</td>
</tr>
<tr>
<td></td>
<td>Regional Cultural Institutes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Municipal Cultural Institutes</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Private Foundations</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Countries</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>Brazil</td>
<td>Australia</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>Chile</td>
<td>Canada</td>
<td></td>
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<tr>
<td>Uruguay</td>
<td>Colombia</td>
<td>Ecuador</td>
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<tr>
<td></td>
<td>Mexico</td>
<td>France</td>
<td></td>
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<td></td>
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<td>United Kingdom</td>
<td></td>
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<td></td>
<td></td>
<td>United States</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Author elaboration*

It can be argued that in order to make the conservation of the urban heritage more sustainable, conservation policies need to move to a third stage when “…the conservation of urban heritage becomes a concern and responsibility of a wide variety of social actors.” As such, it derives momentum and dynamism from the interplay of different interest groups and the real estate market. Private philanthropy, civil society organizations and local communities become involved in the process with clear and complementary roles. This is the phase when the conservation of the urban heritage is a concern of all social actors. Conservation policies designed and implemented under this approach avoid the worst pitfalls of the policies under the previous phases as beneficiaries (the local community) pay a significant share of the cost of conservation and receive national (or provincial) assistance when the heritage is of interest (and therefore benefit) to the entire nation or province. Community participation is promoted by the growing interest that heritage arouses in its members because of the multiple values they attach to it, thus broadening the support base for the effort beyond the national cultural elite. Private philanthropies can find proper channels to contribute to community efforts without displacing the interest that private real estate investors might have in business opportunities offered by heritage assets. Table 3 lists the values.

To move toward this third phase, it is necessary to introduce changes in the way countries approach urban heritage conservation. All social groups must develop a positive vision of the worth of heritage, take part in joint actions to conserve and develop it, and support the integrated actions that the government must undertake. It is also necessary to introduce institutional and operational reforms to increase the efficiency of public spending and facilitate partnerships among interested actors. These changes will not happen automatically; local, regional, or central governments must promote them, because they are the only stakeholders that can take the long-term view required to conceive and carry out reforms of the heritage conservation mechanisms. Government also controls many of the instruments that can be used to encourage the private sector to take more of a leadership role. The government’s role is justified on efficiency and equity grounds because markets alone cannot account for all the social benefits brought about by heritage conservation, like the bequest and options values or the value of heritage of importance for grounds because markets alone cannot account for all the social benefits brought about by heritage conservation, like the bequest and options values or the value of heritage of importance for minority groups. As discussed by Hankey in his work “Management of the Cultural Environment” in this volume, the governing principle of the Conservation Policy is the need to protect and enhance the significance of the site. Limits of potential change should be identified which will cause the least loss of value and significance, while also ensuring sustainability.

Several countries mostly in the developed world have already begun to make progress toward the third phase. In Latin America cities like Oaxaca in Mexico and Quito in Ecuador have urban conservation programs that engage the interest and resources of a wide variety of public and private social actors. These examples show the potential of joint public/private action to promote urban heritage conservation but also emphasize the need to: have strong and sustained public leadership, put all socio-cultural and economic values at play, engage the interest of multiple stakeholders, and establish institutional structures capable of efficiently coordinating interventions of the various actors (see Table 3).

The advantages of reaching the third stage of development in the conservation of the urban heritage are summarized by Rojas that indicates that the successful conservation of the urban heritage conservation—particularly if based on the adaptive rehabilitation of urban heritage sites to contemporary uses requires achieving a delicate balance between conservation and development, between conserving the socio-cultural values of the heritage and allowing for interventions that will position them to accept contemporary uses. As with any situation in which there are significant trade-offs, achieving this balance requires reaching agreements among the stakeholders concerning: the relative importance of the social-cultural values that may be affected by a conservation process based on the adaptation of the heritage sites for new uses; and the contribution to the sustainable conservation of the heritage made by the new uses. In other words, this effort requires weighing the trade-offs among conservation, adaptation, and development.

The balance advocated for above would be attained as a result of transactions taking place in several spheres of social interaction: those where the socio-cultural values of heritage are discovered and esteemed—scientific, historic, anthropological, and sociological academic studies—and where uses are allocated to urban heritage sites and to public and private resources for conservation and development—negotiations, urban real estate markets, urban goods and services markets, philanthropy, and grass roots movements. Both processes are strongly influenced by the system of incentives established by the rules instituted by governments. These include the incentives (positive or negative) put into effect by the heritage conservation laws and regulations, by the land-use and building regulations of the city planning system, and by the tax codes.

At one end there are the most simplistic legal structures for conservation, those through which the government lists urban heritage sites for protection but which leave the owners with the burden of preserving the assets. The observed outcome in such situations is that little conservation takes place. Owners tend to abandon the heritage properties in the hope that physical decay will

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3 Rojas and Moura Castro, Prácticas, 6.
force local authorities to order their demolition thus freeing the property owners from their obligations. At the other end of the spectrum are the legal and administrative arrangements that allow the government—in addition to placing urban heritage site under protection—to lead the conservation process and to involve in this effort a wide variety of stakeholders possessing both financial and management capabilities. It is argued that the latter approach is more sustainable.

The sustainability of urban heritage conservation is enhanced when the urban heritage site become attractive for a wide diversity of social actors interested in a variety of values of the heritage. Therefore, conservation policies must strive to promote the economic values of the urban heritage as a way to support the conservation of the socio-economic values. This is only the translation into the urban heritage conservation field of the urban development principle that change is the essence of cities and that the cities and their neighborhoods are constantly in transition. Freezing the physical characteristics and uses of urban heritage sites does not contribute to adaptation and change, and can easily turn the conservation process from fostering the sustained adaptive rehabilitation of urban heritage areas for new uses to promoting their abandonment and physical decay.

References


Historic Preservation Public Policy in the United States
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The overall preservation policy in the United States was put in place in 1966, with creation of the State and National Registers of Historic Places, and the first municipal preservation law in New York City in April, 1965. The National Register is a list of historic places in the United States. It is paralleled by the State Historic Register in every state. There are over 90,000 properties listed on the National and State Registers, including more than 1.4 million buildings. Local municipalities have the power to create local preservation laws. There are over 2300 preservation ordinances of varying strength in the United States. In addition to Federal, State and Municipal governmental entities, hundreds of statewide and local preservation organizations also advocate for preservation. Unlike the governmental agencies, these organizations have no authority to regulate and are all privately funded.

Municipal Government

The enforcement of preservation law in the United States lies at the municipal level. Municipalities have the power to survey, designate and regulate historic buildings and districts. Alterations to designated buildings or landscapes must be reviewed and approved by the local governing entity, IE, a Landmarks Preservation Commission. Generally, designations at the municipal level can be made without owner consent. Categories of designation include individual buildings, interiors, landscapes, objects and districts. Categories of approval include Certificate of Appropriateness, Certificate of No Exterior Effect, and Permit for Minor Work. Mitigation from a decision by a municipal authority can be provided by a determination of economic hardship based on inadequate return from a landmark building for the owner.

Federal and State Governments

Listing of a building, district or landscape on the National or State Register requires the consent of the owner. Listing provides no restriction on alterations paid for by private owners. Alterations are reviewed on behalf of the federal government by the states. Every State has a State Historic Preservation Office (SHPO). Listing provides protection from projects using federal or state funds--for example, a building in the path of a proposed new federal or state funded highway. Mitigation may include moving a building or documenting it if it must be demolished. If there is disagreement between the agency using the funds and the owner of the building, a determination to resolve the matter is made by the Advisory Council on Historic Preservation in Washington DC, through a 106 review process.

Non-Governmental Preservation Advocacy Organizations

Every state has a privately funded statewide advocacy group. There are also hundreds, if not thousands, of privately funded local advocacy groups. These groups help identify potential landmarks to the governmental agencies and testify at public hearings regarding the regulation of protected properties.

United States of America Historic Preservation Timeline

- **1849**  Congress creates Department of the Interior
- **1850**  New York State acquires and opens Washington's Headquarters, Newburgh, New York
- **1858**  Ann Pamela Cunningham (Mount Vernon Ladies Assoc.) acquires Mt. Vernon, VA
- **1872**  Congress establishes Yellowstone National Park, under Department of the Interior

A Brief History of Historic Preservation Policy in the United States

The framework for organized historic preservation in the United States was established in the mid-19th Century. Congress created the Department of the Interior in 1849, which paved the way for the Antiquities Act of 1906 and the National Park Service in 1916. The first historic buildings, Washington’s Headquarters in Newburgh NY and Washington’s home, Mt. Vernon, in Virginia, were acquired in 1850 and 1858, respectively.

The Trustees of Reservations, the first private non-profit organization to protect open space, was established Massachusetts in 1891 to protect open land around Boston, which was threatened with industrialization. It became one of the model for the creation of the English National Trust, in 1895. The English trust protected buildings as well as open land from the outset, focusing primarily on English Country Houses, countryside and coastline. The Trustees of Reservations acquired its first historic house in 1927.

The Antiquities Act of 1906 gave the President the authority to create by Presidential Proclamation National Monuments on lands owned by the Federal Government to protect historic landmarks, historic and pre-historic (archaeological) structures, and other objects of historic or scientific interest.” This was extended to protect marine resources in 2000.

This was followed in 1916 by the creation of the National Park Service, which was made responsible for the protection and operation of the 35 National Parks and Monuments which...
hundreds of privately funded statewide and local preservation organizations also advocate for power to create local preservation laws. There are over 2300 preservation ordinances of varying of historic, cultural and architectural resources through the National Register of Historic Places. In 1966, Congress enacted the National Historic Preservation Act, establishing a national survey to designate thousands of buildings, and served as the model for many other local landmarks.

Responding to pressure from the Society for the Preservation of Old Dwellings, formed in 1920, The City of Charleston designated the Nation’s first Historic District, “the Old and Historic District,” in 1931. It designated an area of 18th century buildings at the southern tip of the city that were not only culturally but architecturally significant, mostly high-style residences and public buildings, and empowered the city to regulate change to them even though it did not own them. Later efforts beginning in the 1940’s protected buildings of a more vernacular, less high-style character.

Efforts began in New Orleans to protect the Mississippi Riverfront, 18th century Vieux Carre historic district with the establishment of the Vieux Carre Commission in 1925. The Commission was given regulatory powers in 1937.

Interestingly, both the Charleston and New Orleans historic districts were created in the Great Depression, when little capital existed to demolish historic properties to construct new buildings. The depression also led to the creation, by Charles Peterson, of The Historic American Buildings Survey in 1933. HABS provided jobs for unemployed architects, draftsmen and photographers in recording important historic buildings, like Independence Hall in Philadelphia and some of the Pueblos in the American Southwest. HABS was later expanded to include engineering landmarks (Historic American Engineering Record) and historic landscapes (Historic American Landscapes Survey).

To supplement the Federal Government’s efforts to protect properties through the National Park Service, the private National Trust for Historic Preservation (NTHP), partly funded by government, was created in 1949. Starting out by acquiring and restoring large private houses, which it opened to the public as house museums, the NTHP expanded in the 1960’s and 70’s to become the nation’s leading private advocacy organization.

The demolition of Penn Station in 1964 galvanized the preservation movement and led to the enactment of the New York City Landmarks Law in 1965. This gave the city the power to designate thousands of buildings, and served as the model for many other local landmarks laws. The same year, the first graduate degree program in historic preservation was established by Charles Peterson, of The Historic American Buildings Survey in 1933. HABS provided jobs for unemployed architects, draftsmen and photographers in recording important historic buildings, like Independence Hall in Philadelphia and some of the Pueblos in the American Southwest. HABS was later expanded to include engineering landmarks (Historic American Engineering Record) and historic landscapes (Historic American Landscapes Survey).

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In 1966, Congress enacted the National Historic Preservation Act, establishing a national survey of historic, cultural and architectural resources through the National Register of Historic Places and the State Historic Preservation Offices.

Federal and State designations are honorary and carry no protective power. Regulatory power over alteration to designated historic properties lies with local municipalities, which have the power to create local preservation laws. There are over 2300 preservation ordinances of varying strength in the United States. In addition to Federal, State and Municipal governmental entities, hundreds of privately funded statewide and local preservation organizations also advocate for preservation. The earliest of these were established in the mid-1930’s, but most of them were created after 1965. These organizations have no authority to regulate or designate. Funding for preservation in the USA is almost completely private, except for properties owned by state or federal government. Government-owned buildings tend to be either historic sites open to the public or designated government buildings like post offices or courthouses. Most designated properties in the USA are private dwellings located in historic districts and receive no government funds. Various incentive programs to encourage historic preservation through grants or tax deductions have been created since the 1960’s.

Federal Preservation Policy and Programs

There are two ways the Federal Government protects historic properties: Ownership and Identification. The Federal Government owns properties through the National Parks Service, created in 1916. The NPS is part of the Department of the Interior, created in 1849. The National Register of Historic Places, created in 1966, consists of over 90,000 properties listed on the National and State Registers, including more than 1.4 million buildings. The National Register is paralleled by a State Register in each state. The minimum property age for individual listing is 50 years. The National Register Program is administered by the State Historic Preservation Office in each state. The Federal and State registers include designations for individual buildings, historic districts, scenic landscapes and cultural landscapes. Listing on the National or State Register requires the consent of the owner.

Listings on the National register and State register offer no protection against inappropriate alteration using private funds. However, it does provide protection for listed properties from negative impact resulting from projects using federal or state funds. This is called a 106 review process. If there is a disagreement in the review process, a resolution is made by the Advisory Council on Historic Preservation. Examples:

- Relocation of a highway to spare a designated site. If a building cannot be saved, it may be documented and recorded for posterity.
- Redesign of the jetBlue terminal to protect the TWA terminal at Kennedy Airport.

Alterations and additions to National and State Register properties are guided by the Secretary’s (of the Interior) Guidelines for the Restoration and Rehabilitation of Historic Properties.

State Preservation Policy and Programs

Every State has a State Historic Preservation Office (SHPO). Listing provides protection from projects using federal or state funds-- for example, a building in the path of a proposed new federal or state funded highway.

Most SHPO’s have two divisions, one for the oversight and operation of historic sites owned
by the state, another for the National Register and compliance function. A governor appointed Commissioner and board oversee the function of the department.

The National Register department surveys the state for eligible individual building, historic district, cultural district and landscape properties. It prepares nominations for each type and forwards them to Washington. Listings may be of national, state or local significance.

The National Register department also reviews, under the 106 review process, alterations or additions to listed properties using federal or state funds, using the Secrecies Standards Guidelines for Restoration and Rehabilitation of Historic Properties as a guide. The compliance department additionally reviews all state or federal projects moving forward in the state to determine whether or not they affect listed properties.

Disputes in the department's review between the department and an owner are forwarded to the Advisory Council on Historic Preservation for resolution.

Mitigation may include moving a building or documenting it if it must be demolished. Documentation follows the standards established by the Historic American Buildings Survey, the Historic American Engineering Record, or the Historic American Landscapes Survey.

Municipal Preservation Policy and Programs

The enforcement of preservation law in the United States lies at the municipal level. Municipalities have the power to survey, designate and regulate historic buildings and districts. The first comprehensive preservation law was enacted in New York City in 1965, establishing the New York City Landmarks Preservation Commission (LPC). The LPC works in concert with the Dept. of Buildings and the Planning Commission. Designated properties must be more than 30 years old.

The staff of the LPC has varied between 20 and 60 people. The work of the LPC is governed by a board of commissioners representing each borough of the city of New York and a variety of related disciplines, including history, architecture, preservation and real estate. Since 1965, the LPC has designated over 35,000 properties, including more than 1500 individual properties and 100 historic districts. Properties can be listed for Cultural, Historical or Architectural significance. Most early designations were Architectural, lately more are being listed for Cultural significance, such as civil rights. The LPC recently designated its first LGBT landmark, the Stonewall Inn. The significance of vernacular, non-architect designed buildings, such as tenements, has also been recognized.

Properties can be designated without owner consent. Categories of designation include individual buildings, interiors, landscapes, objects and districts. Jurisdiction extends only to the exterior of buildings; what is visible from the public way. Categories of approval include Certificate of Appropriateness, Certificate of No Exterior Effect, and Permit for Minor Work. Certificates of Appropriateness require public hearings and input. Certificates of No Exterior Effect can be given by staff for interior work requiring a permit from the Department of Buildings. Permits for Minor Work can be given. Mitigation from a decision made by the LPC can be provided by a determination of economic hardship based on an inability to make an adequate return from a landmark building caused by the restriction imposed by the LPC.

The LPC provides limited grants to non-profit and low income building owners. Funds to assist the City of New York in the operation of the LPC are raised by the New York Landmarks Preservation Foundation.

Non-Governmental Preservation Advocacy Organizations

Every state has a privately funded statewide advocacy group. There are also hundreds, if not thousands, of privately funded local advocacy groups. These groups help identify potential landmarks to the governmental agencies and testify at public hearings regarding the regulation of protected properties.

Without the existence of such groups most preservation law in the United States at the municipal level would not have happened. The work is long and tedious as it involves getting government to take action. Usually one person must dedicate themselves to the cause to make something happen.

The earliest local preservation advocacy group to form in the United States was the Society for the Preservation of Old Dwellings, founded in Charleston in 1920. The Society, later renamed The Preservation Society of Charleston, initially prevented the demolition of many historically and architecturally significant private residences in the city. It later advocated for the creation of the nation's first historic district, the "Charleston Old and Historic District" which was designated in 1931. Most large cities have many such organizations, focusing on specific aspects of historic preservation.

In New York, the Municipal Art Society, the Landmarks Conservancy, the Historic Districts Council, and local groups like Friends of the Upper East Side and the Brooklyn Heights Association constantly monitor and comment on the activities of the Landmarks Preservation Commission. Even most small communities have a local "friends of“ organization.

Following the creation of the State Historic Preservation Agencies, statewide advocacy organizations, like the Preservation League of New York State like the Landmarks Preservation Council of Illinois, were formed. Preservation Action, a nationwide Advocacy group, is an umbrella group for the Statewide Organizations and lobbies Congress in Washington, DC.

Preservation Funding and Incentives

Federal and State Governments pay for preservation of designated properties they own, like post offices, courthouses, etc. Federal programs like National Endowments for the Arts and Humanities make funds available on an annual cycle. Some municipal agencies like the New York Landmarks Preservation Commission offer grants.

Most other preservation is privately funded. Private funding comes from individual owners (for their own buildings) or in the form of grants from preservation advocacy groups and private foundations. Examples include:

- National Trust for Historic Preservation
- Main Street Program
- Statewide Preservation Organizations, such as the Preservation League of New York State, which has funds supporting barn preservation in rural areas and planning for village centers in small communities.
- Private foundations like the J.M. Kaplan Fund and the World Monuments Fund, which support preservation projects locally, nationally and internationally.
- The Tax Reform Act of 1976 established tax incentive program to encourage private sector investment in rehabilitation and adaptive re-use of income
producing historic buildings (not owner-occupied residential properties). Has leveraged $78 billion in private investment and preserved over 40,000 buildings.

- Administered by the Internal Revenue Service in partnership with State Historic Preservation Offices.
- Offers a 20% tax credit (of the value of the improvement) is available for buildings determined to be "certified Historic Structures," listed on the National Register. Work must comply with the Secretary's Standards for Rehabilitation.
- A 10% tax credit is available for non-designated buildings constructed before 1936. 50% of interior walls, 75% of internal structural framework and 75% of exterior walls must remain. No historic preservation review, primarily aimed at sustainability.
- Preservation Easements (which restrict the development of a property and therefore devalue it) can be donated by an owner to an easement holding organization like the National Trust for Historic Preservation or New York Landmark Conservancy, who polices them in perpetuity. An owner who donates an easement may be eligible for a Federal Income tax deduction.

Finding Room in Guyana: Promise, Pitfalls, & Heritage
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Abstract
Heritage, while not a new concept in Guyana continues to suffer through periods of 'boom' and 'bust'. During heritage booms, public efforts and private interest in heritage preservation seem harmonized and active, while 'busts' have come to symbolize periods when tangible heritage, especially, endures neglect and exhibits signs of physical deterioration. This paper examines the institutionalization of historic preservation in Guyana from colonial times and explores some triggers of heritage booms and corresponding busts against the backdrop of the evolving urban character of Guyana's capital city, Georgetown.
Documentation & Conservation
Considerations for Wood in Historic Preservation and Building Conservation
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Abstract
Timber buildings built in the traditional style are important components of the cultural landscape of Guyana. Even in the tropics, wood has performed well in structures for hundreds of years when protected from the deleterious effects of moisture and biological deterioration, often due to the open (well ventilated) construction typical in these traditional structures. Prior to implementing a preservation plan for the structure, architects, engineers and preservationists need to know where deterioration is present in the wood and whether the remaining strength is adequate for the intended loads. Conducting a wood assessment is the means to acquire that information. This paper provides a brief description of considerations of wood properties and condition assessment when preserving timber structures.

Wood has performed well in buildings for hundreds of years in both temperate and tropical climates when protected from the deleterious effects of moisture and biological deterioration. Many timber buildings in Guyana from before and during the English period (post 1803 to 1966) used locally available species, such as greenheart (Chlorocardium rodiei, also known as Ocotea rodiei) for framing, and imported species, such as pine from North America, for floors, walls and decorative elements. Several examples of typical Guyanese historic timber structures are shown below (Figures 1-7). Regardless of the type of structure, the behavior of wood is essentially the same under similar conditions, subject to the inherent variability of individual wood species.

In timber buildings, moisture that could provide a favorable environment for decay or insect attack of wood often does not result in deterioration due to the natural durability of the species, such as greenheart, and construction practices that allowed for the wood to dry after brief periods of wetting. Buildings that used nondurable species, were built in a way that trapped moisture, or not maintained are often no longer in existence or are deteriorating. Architects, engineers, preservationists, and conservators should have a basic understanding of wood properties, mechanisms of wood deterioration, and how to conduct a condition assessment to make informed repair and replacement decisions on historic wood in buildings.

Wood Properties
Knowledge of wood properties and construction of these buildings is invaluable for making informed repair and replacement decisions during preservation or conservation works. The long-term performance of timber buildings is affected by the properties of the wood used in the construction, the design of the building, and the construction details. Wood behavior is highly variable and it is that variability relative to the use of wood in historic structures that we wish to understand. Understanding when a building is performing well is as important as understanding why wood has deteriorated or failure has occurred.
Figure 2. St. George Cathedral, Georgetown, reportedly the tallest timber church in the world
(Courtesy of National Trust of Guyana)

Figure 3. The Red House (Kamana Court), Kingston, built of pitch-pine and red wallaba shingles
(Courtesy of National Trust of Guyana)

Figure 4. Vernacular House

Figure 5. Teaching Service Commission, Historic Stabroek, numerous decorative elements

Figure 6. Denham Suspension Bridge, Cuyuni-Mazaruni Region
(Courtesy of National Trust of Guyana)

Figure 7. Skeldon Estate Manager's House
(Courtesy of National Trust of Guyana)
Wood properties for temperate and tropical softwood and hardwoods are readily available on the internet and in many technical publications, such as the Wood Handbook, Tropical Timbers of the World, Present and Potential Commercial Timbers of the Caribbean. The wood property data are intended for many forest products (e.g., furniture), and are not specific to wood used in historic structures. Particularly, for tropical hardwoods, the wood properties are typically not presented in a format very useful to historic preservation and building conservation practitioners that may be interested in structural performance rather than general use. The basis of the data is frequently not described and the user is left with tables from which they must decide which information is relevant to their situation. The structural grade for a specific wood species may be needed to evaluate a specific structure, but such information is not readily apparent in most publications. Instead, strength properties are given for clear wood, rather than design values for lumber and timbers. An example of available data for greenheart is given below:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Names</td>
<td>Greenheart</td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Chlorocaradium rodiei (syn. Ocotea rodiei)</td>
</tr>
<tr>
<td>Distribution</td>
<td>Northeastern South America</td>
</tr>
<tr>
<td>Tree Size</td>
<td>75-100 ft (23-30 m) tall</td>
</tr>
<tr>
<td>Average Dried Weight</td>
<td>63 lbs/ft³ (1,010 kg/m³)</td>
</tr>
<tr>
<td>Specific Gravity (Basic, 12% MC)</td>
<td>0.81, L01</td>
</tr>
<tr>
<td>Janka Hardness</td>
<td>2,530 lbf (11,260 N)</td>
</tr>
<tr>
<td>Modulus of Rupture</td>
<td>28,800 Bf/in² (185.5 MPa)</td>
</tr>
<tr>
<td>Elastic Modulus</td>
<td>3,573,000 Bf/in² (24.64 GPa)</td>
</tr>
<tr>
<td>Crushing Strength</td>
<td>13,290 Bf/in² (91.7 MPa)</td>
</tr>
<tr>
<td>Shrinkage</td>
<td>Radial: 8.2%, Tangential: 8.9%, Volumetric: 16.5%, T/R Ratio: 1.1</td>
</tr>
</tbody>
</table>

Numerous technical publications from research institutions also provide technical data on wood species. Note the difference in the values shown in the table below published in Present and Potential Commercial Timbers of the Caribbean, a more technical publication. These values are also for greenheart and are given for both the green (saturated) and air-dry (approximately 12 percent moisture content) conditions.

Historic preservation and building conservation professionals are often confused by the range of data available on the internet and in books or technical publications. As a result, poor decisions are sometimes made because of misinterpretation of the data relative to the use of the wood in a structure. In the tables shown above, wood properties are presented for greenheart. Yet none of the values are shown as the allowable design values referenced in the Building Code, prepared by the Guyana National Bureau of Standards, or identified in the Guyana Timber Grading Rules. Understanding the basis of the data (which may not always come from test results) is critical to making good decisions about wood. Understanding the data begins with properly identifying wood species.

Identifying wood species makes it possible to determine material properties for conducting a structural analysis and to identify compatible material for repairs. Wood species can be identified by removing small samples from wood elements, from which the species or species group can be determined under microscopic examination. An excellent discussion of the methodology for identifying wood species is provided in Wood Identification by Hoadley. For structural elements, once the wood species is known, determining the structural grade, or strength, of an element is essential for determining structural capacity.

Lumber and structural timbers used in new construction are intended to comply with the relevant building code for that jurisdiction. For wood construction, structural engineers rely on design values referenced in the building code to determine an acceptable species, size and grade for a particular load condition. The timber design values for Guyana are given in the Building Code prepared by the Guyana National Bureau of Standards. Based on the British Standard BS 5756:2007, the Building Code lists lumber grades determined by species, size of the element(s), and growth characteristics, such as knots and slope of grain. Knots and slope of grain tend to be the grade-limiting characteristics for lumber and timber in older buildings.

For historic buildings the engineer often relies on readily available information on common species and current standards to determine the adequacy of the wood members to remain in service. Frequently an assumed species and grade are assigned, only to show that the wood elements are structurally deficient. The result is often an overly conservative estimate of design values and unnecessary replacement, repair, and retrofit decisions along with associated unnecessary project costs. In-situ visual grading can not only lead to the preservation of historic fabric but can also improve a project’s cost by allowing engineers and project team members to make more informed decisions regarding the capacity of existing wood framing based on established material properties.

### Wood Assessment Issues

There are three primary reasons to conduct a wood assessment: (a) concerns about moisture and its effects, (b) deterioration (both physical and biological) and (c) a need to know material properties (strength). Material properties are often of interest because of the need for wood elements to carry structural loads. Wood species is another important material property, not only for strength requirements discussed above, but also for compatibility of repairs with existing materials due to other properties that vary with species, such as shrinkage. Although individuals reportedly can identify wood species visually in the field, the method described above for removing small samples is the most reliable means of accurately identifying the type of wood.

### Moisture Concerns

Prolonged exposure to moisture without sufficient drying can produce undesirable conditions and long-term maintenance issues for wood in a structure. Moisture stains, peeling

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Minor Deterioration Mechanisms

Deterioration of wood can be the result of physical processes (weathering, failure due to overload, mechanical damage or shrinkage) or biological processes (decay and insect attack). Timbers intended to support the building will typically have cracks or checks on one or two faces of the timber. These checks are due to differential shrinkage of the timber and are part of the natural process as the wood dries. If the timber has split through the entire thickness, a more detailed investigation is necessary to determine whether the split is a failure due to overload, mechanical damage or associated with shrinkage around connections. Differential shrinkage in wood joints can result in failure of the joint that is restricted by wooden pegs or steel bolts.

Weathering is the result of the action of cyclic wetting and drying of the wood, exposure to ultraviolet light and erosion of the wood through wind-blown debris (a process similar to sand blasting). Unlike decay or insect attack, weathering is typically not a significant factor in the failure of wood elements and collapse of a structure. Weathering will change the appearance of wood exposed to the elements but the process is slow enough that failure of components due to decay or insect attack generally occurs long before the wood weathering becomes a major factor in the failure. We typically think of weathered wood as aesthetically pleasing because, unlike decay or insect attack, seldom does it damage the wood enough to require replacement, except for wood roofing and cladding (Figure 8).

Biological Deterioration

Biological deterioration is generally caused by fungal or insect attack. All wood is subject to a variety of deterioration mechanisms, the most prominent of which are wood-decay fungi in temperate zones and insect attack in tropical zones. Tropical hardwoods used in traditional construction in Guyana were naturally durable and resisted insect attack and decay, except when subjected to frequent and prolonged direct contact with moisture due to poor construction detailing or a lack of maintenance (Figure 9). Many timbers and wood components found in vernacular buildings may use non-durable species and are subject to deterioration. The presence of moisture stains on the wood surface is indicative of potential decay problems (Figure 10).
Deterioration can ultimately lead to the inability of structural members to perform their function. Large timbers, depending on wood species, frequently will succumb to decay or insect attack on the interior of the element, where absorbed moisture is retained, with no visible sign of the deterioration. Moisture absorption though the end of a timber and through check or holes provides a highly favorable environment for decay fungi to attack the heartwood at the center of a large timbers. The heartwood (the inner part of the tree) typically has more resistance to deterioration than the sapwood (the outer part of the tree). However, even naturally durable species, when exposed to enough moisture, can deteriorate. Deterioration is a particular concern where the wood is in contact with the ground or other materials, such as porous stone, that may provide for moisture absorption into the wood.

There are many types of fungi. Fungi propagate from spores that are present in the air. For wood, we are concerned with mildew, stain and decay fungi. Mildew grows on the surface of wood and does not affect the strength of the wood. Stain fungi (not to be confused with moisture stains) penetrate the surface of the wood but do not reduce the strength. Decay fungi break down the wood components over time. Although there are many types of decay fungi, including brown rot, white rot, and dry rot, for purposes of a wood condition assessment, all types of decay fungi affect the ability of wood to perform its intended function. As such, identifying the specific fungus is not important. Identifying the location and extent of deterioration due to decay fungi is important.

Generally, if the moisture content is less than 20 percent fungi are unable to grow. While fungi may be present at lower moisture contents they are unable to continue to deteriorate the wood without sufficient moisture. Moisture contents from 20 – 30 percent indicate areas of concern where sufficient moisture is present for fungi to grow but may not be sufficient to support long-term active decay. Moisture contents between 30 and 40 percent are highly favorable for fungal growth, and are often an indication of advanced decay with internal voids and/or surface deterioration. Insects generally require the moisture to be greater than 10 percent to be active and deteriorate the wood. That moisture condition exists in virtually all of the tropics.

The early stage of decay (incipient decay) is characterized by discoloration and an initial loss of integrity of the wood. No voids are present. Probing with an awl or a screwdriver may find the surface of the wood to be soft or punky (Figure 11). As the decay progresses, the cellular structure of the wood deteriorates until small voids develop. These small voids continue to extend primarily along the wood grain (where it is easier for moisture to move through the wood) but also progress more slowly across the grain. Larger voids develop where the decay started and the boundaries of the incipient decay continue to extend, reducing the integrity of the wood and, potentially, compromising the ability of the wood to provide the structural support required. For internal voids, simple probing with an awl or a screwdriver is unlikely to detect the hidden deterioration. An increment borer or a portable hand drill may be used to examine wood removed from the interior of larger timbers. More advanced techniques are available to quantify the extent of deterioration, rather than simply identify its presence.

Insect attack by termites or other wood borers will reduce the cross section of a wood member by either digging or tunneling through the wood. Subterranean or drywood termites digest the wood as they move through the wood below the surface. Termites can often be detected through the presence of mud tubes on the exterior of either the structure or individual wood members. The mud tubes allow for the termites to maintain a favorable moisture environment as they move towards a new food source. Wood-boring beetles bore holes that are packed with frass (the byproduct of the tunneling process). There are many types of wood-boring beetles. Their activity can be detected by observing exit holes or exfoliating wood on the surface of wood components.

With decay, there is a transition from sound wood to punky wood to a total loss of wood fiber (a void). Unlike decay, which may have a gradual transition from sound wood to a void, insect damage tends to have an abrupt transition between affected and unaffected areas of the wood. The remaining wood which has not been penetrated by insects retains its structural integrity (although a loss of cross section results). The mechanism of deterioration is different for insect attack but, as with decay fungi, moisture is generally required and the resist is a loss of integrity of the wood member, as well as a loss of cross section.

Extending the life of wood elements is one of the goals of historic preservation practitioners. The susceptibility of wood to biodeterioration can be minimized through design, construction practices, maintenance, and in some cases through treatment of structural members with wood preservatives. For most historic structures, use of wood preservatives or pressure-treated wood becomes a consideration when deterioration has been identified and when there are concerns about the long-term serviceability of the wood elements. If moisture problems and subsequent deterioration were caused by a lack of maintenance, there is generally no need to apply wood preservatives or repair materials with pressure-treated wood, unless the maintenance issues cannot be addressed or the project is to be mothballed for a significant period of time. If the building has poor drainage conditions that cannot be mitigated, or if construction or design flaws have led to deterioration, the application of preservatives and the use of pressure-treated wood for repairs may be warranted.

**Terminology Describing Condition**

It is important to use a standardized classification system for describing conditions so that others understand when an element may need to be repaired or replaced. For example, the term “fair condition” is not clear and may lead to repair decisions that are unnecessary or costly. The definitions should be based on the ability of the wood to perform its intended function or carry the anticipated loads. Typical terminology for wood condition is given below.

The term “excellent” is used to describe a wood element that is able to perform its intended function. It is essentially free of deterioration due to wood decay fungi and has no visible or detected evidence of insect attack. The element may exhibit surface moisture staining or minor weathering but it has not deteriorated. “Good” is used to describe elements that are able to perform their intended function but may have very minor deterioration due to decay or insect attack, indicating that decay or insects were, at one time, active in that area of the element. Minor deterioration is damage that is incidental to the element’s ability to perform its current function; therefore, the damage is aesthetic only.

A wood element classified as “fair” is unable to perform its intended function for an extended period of time without some repair or treatment. An element may also be classified as in “fair” condition if there are visible signs of deterioration that extend into the depth or across the face of the element. An element classified as in “poor” condition is one that has significant deterioration, most likely due to extensive decay and/or insect activity or it has failed, and may be unable to perform as needed to meet anticipated design specifications (if structural) or protect other parts of the structure (if part of the building envelope). Elements in poor condition may contribute to the failure of the element or supporting structure.

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Tools for Basic Wood Inspection

There are three ‘tools’ for a basic wood inspection – visual inspection, a sharp probe (Figure 11), and a moisture meter (Figure 12). Nondestructive evaluation equipment is available that can give much more information about wood condition but use of such tools should be reserved for situations where a basic inspection cannot sufficiently answer the questions about the wood that need to be addressed by the architect, engineer or practitioner. In addition to the three basic ‘tools,’ an individual experienced in wood inspection may use a hammer for sounding or a portable hand drill to gain information about the relative condition of the wood, although neither of these methods allows for quantifying the extent of deterioration. They are best suited for identifying locations that warrant further investigation.

A visual inspection is just that– looking for things that do not appear to be right. Visual examination of the wood allows for identifying components that are missing, broken or in an advanced state of deterioration. Missing components are those which have been removed or have fallen away, frequently due to extensive deterioration. If missing components were intended to provide structural support or protection from the exposure (e.g. prevent moisture intrusion), their replacement may be essential to prevent long-term damage to the structure. This is a common problem with roof leaks in historic buildings. A small mirror with a telescoping handle and a flashlight are useful when inspecting relatively inaccessible areas.

Visual inspection also allows for the detection of past or current moisture problems, as evidenced by moisture stains on the exposed surface of the wood. Further, visual inspection enables detection of external wood decay fungi or insect activity as determined by the presence of decay fruiting bodies, fungal growth, insect bore holes, mud tubes, or wood substance removed by wood-destroying insects. Visual inspection provides a rapid means of identifying areas or elements that may need further investigation.

Probing the wood with a sharp pick or an awl enables rapid detection of voids in the wood that may not be visible on the surface. Internal decay is often masked by the lack of evidence on the exposed surface of the wood. For advanced decay, where large internal voids are present near the surface, probing allows for detection of potentially serious deterioration. For internal voids in large timbers, more advanced inspection methods are generally required to detect the void. Even for the early stage of decay, termed incipient decay; probing is beneficial. Probing can often reveal areas of incipient decay in timber, which has experienced sufficient deterioration due to decay fungi to allow for easy entry of a sharp probe although no void is yet present. Wood without incipient decay tends to offer more resistance to probing due to the higher density and more intact internal wood structure.

Portable moisture meters are available that allow us to take a reading of the approximate moisture content of wood without removing a sample from the structure. There are two primary types of portable moisture meters; one based on electrical capacitance and one based on electrical conductance. Each type is useful in assessing moisture problems in historic structures. Commercial moisture meters are typically calibrated for temperate species so readings may need to be adjusted for tropical hardwoods.

A capacitance-type meter is based on the principal of measuring the electrical field within a small area of a piece of wood. These meters do not require penetration of probes into the wood and generally provide the average moisture content throughout a certain depth, typically less than an inch, although a wet surface (e.g. rain on a sill) can dramatically affect the reading. These meters are particularly useful for measuring the moisture content of woodwork (doors, windows, trim, etc.) and dimension lumber. For thicker material (structural timber), a conductance meter will provide a better indication of the internal moisture content. A conductance-type meter (often called a resistance moisture meter) is based on the principal of electric current being conducted through wood between two probes. The probes, which come in different lengths, are inserted into the wood to various depths. This allows for determining the moisture content at a specific depth. This is particularly useful to determine whether wood is drying or absorbing moisture.

Where To Look

Knowing where to inspect and what tools to use depends on the goal of the condition assessment or inspection. The condition of wood elements is the most common reason for conducting an inspection. That being the case, it makes sense to look for problems where they are most likely to occur in a structure. A visual inspection will often locate areas that warrant further investigation. Missing or failed components, moisture stains, the presence of fungal fruiting bodies, decayed wood, insect bore holes, mud tubes or frass are indicators that need closer investigation. An inspection should focus on areas where problems are known to be common, such as:
• Wood in ground contact
• Wood that exhibits moisture stains
• Wood with visible decay or insect damage
• Floor joists and girders
• Stilt beams and plates, particularly when in contact with masonry
• Roof timbers
• Porches
• Exterior wood work, including cladding, window, doors, roofing and soffits
• Crawl spaces or non-timber first floor
• Areas of the structure that have been modified

It is essential to remember that the purpose of the condition assessment is to provide data that can be used to answer questions raised by the architect, engineer or owner about the condition of the wood. If the wood has moisture stains, are the stains recent, as indicated by high moisture content readings, or is the wood sufficiently dry that the stain likely occurred long ago? If decay is present, can it be active, as indicated by moisture content reading greater than 20 percent, or is the decay fungus dormant? Are splits due to normal drying checks or is it an indication of failure of that element? If so, was the failure due to loads exceeding the capacity over time (i.e., the component was under-designed) or could it be due to a one-time occurrence (e.g., something very heavy was placed on it years ago)? It is these types of questions that the inspector should ask during the condition assessment. Sound technical data about the current condition of the wood are necessary for effective repair and replacement decisions to be made. Sound technical data come from a thorough wood condition assessment and a good understanding of wood properties relative to the project goals.

Summary

Wood has performed well in buildings for hundreds of years in both temperate and tropical climates, including Guyana, when protected from the deleterious effects of moisture and biological deterioration. The timber buildings built in the traditional style are important components of the cultural landscape of Guyana. Many timber buildings in Guyana from before and during the English period (post 1803 to 1966) used locally available species for framing and imported species for floors, walls and decorative elements. The long-term performance of timber buildings is affected by the properties of the wood used in the construction, the design of the building, and the construction details. Wood behavior is highly variable and it is that variability relative to the use of wood in historic structures that we wish to understand.

It is essential to remember that the purpose of the condition assessment is to provide data that can be used to answer questions raised by the architect, engineer or owner about the condition of the wood. Sound technical data about the current condition of the wood are necessary for effective repair and replacement decisions to be made. Sound technical data come from a thorough wood condition assessment and a good understanding of wood properties relative to the project goals.

References


Today, cultural heritage resources are at risk from a myriad of threats. These threats include, among others, degradation due to lack of awareness and funding, uncontrolled development, deliberate destruction as part of conflict, and climate change and sea-level rise. Documentation is a critical component of ensuring the survival of cultural heritage or helping mitigate its loss. There are two principle components of the documentation process:

- Recording information of monuments, buildings, and sites including history, physical characteristics, and existing conditions; and
- Organizing, interpreting, managing, and disseminating the information.

Documentation is a core activity of the planning phase and precedes any intervention at a cultural heritage site and should continue throughout the process of conservation, management, and interpretation. The significance of documentation extends beyond informing the conservation process and providing a record for posterity. As explained by conservation architect and heritage specialist François LeBlanc, documentation is a tool for communicating "information that can help educate the public regarding the values a site holds and the ways in which conservation has been conducted."  

This paper presents some key principles guiding the documentation of cultural heritage resources, examines potential activities and tools for recoding a site's history and physical condition, and explores the Historic Structure Report as one method for organizing and sharing information. The following recommendations and considerations adhere to international standards and best practices established by UNESCO's World Heritage Center and Committee, the International Council of Monuments and Sites (ICOMOS), and the International Center for the Study of the Preservation and Restoration of Cultural Property (ICCROM).

**Guiding Principles**

The principles described in this paper are informed by and adapted from the ones developed by ICOMOS in 1996 and further elaborated and defined by the Getty Conservation Institute in the publication Recording, Documentation, and Information Management for the Conservation of Heritage Places: Guiding Principles written by Robin Letellier with contributions from Werner Schmid and François LeBlanc in 2007. These principles include, but are not limited to, the following:

**When to Record:** Documentation should occur as part of surveys and inventories of cultural heritage resources of different scales (individual monuments, buildings and interiors, building ensembles, and cultural and urban landscapes) and should take place as part of planning for an intervention, informing critical decisions about stabilization, conservation, change of use, etc. Documentation should continue during and after the process of intervention and as part of ongoing, cyclical maintenance.

**First Step in Recording:** Research is an initial step in the documentation process — identifying and examining extant records and sources of information about the history, physical characteristics, and existing conditions of a cultural heritage resource.
Documentation & Conservation

Types and Contents of Records: Basic information gathered as part of cultural heritage resource documentation include:
- Identify, locate, and describe the resource
- Historical records and studies (maps, original drawings, historic photographs, etc.)
- Metric and quantitative data (surveys, existing condition drawings, etc.)
- Qualitative information (statement of significance, management, condition, etc.)

Policies for Recording: Establishment of standards and policies for gathering information, documenting cultural heritage resources, and sharing and exchanging records with identified stakeholders (key decision makers, engaged experts, governing and regulatory bodies, funding agencies and organizations), among others.

Level and Methods for Recording: The type and level of detail of documentation and the methods for gathering information should be appropriate to the significance of the heritage resource, the purpose of recording, available resources, and time frame.

Second Step in Recording: After the research phase and identification and review of existing records, new documentation is typically undertaken, adhering to the policies established and level of recording deemed appropriate. Additional documents may include field measured sketches and drawings, photography, survey and inventory, existing conditions assessment, technical studies, etc.

Storage of Records: Standard formats should be utilized and/or developed and stored in a manner appropriate to the record which ranges from original, archival documentation to contemporary, paper documentation to a range of digital files. Digital files should be saved in multiple file formats in two or more locations.

Activities and Tools
While documentation strategies vary (refer to "Level and Methods of Recording" described above), certain activities and tools are commonly undertaken when studying and recording cultural heritage resources. These include:

Identification and Evaluation of Historical Records: Archival information can be found in an array of locations including libraries, government departments and agencies, and historical societies and other non-profit organizations dedicated to history and culture, among other sources. Types of historic records that should be identified and evaluated include:
- Maps
- Deeds and other records maintained by government agencies and others
- Archival records such as correspondence and other written materials
- Original drawings
- Early depictions including sketches or paintings
- Historic and other photographs
- Construction-related information
- Previous assessments and conservation reports
- Maintenance logs and reports

Copies of these records—hard copy and/or digital—should be produced and systematically organized as part of the evaluation process.

Surveys and Measured Drawings: The cultural heritage resource and its context are typically surveyed drawings and maps are developed that relay the physical condition and setting. These surveys are often a combination of hand measuring and on-site assessment in combination with other technologies and tools. For example, 3D imaging such as photogrammetry and laser scanner are increasingly used in the documentation of a range of resources and the production of drawings. Site context mapping is often enhanced through surveys, Geographic Position System (GPS), and Geographic Information System (GIS). The process used to measure and survey a resource should be clearly recorded accompanied by any field sketches and notes.

Technical Analysis: The overall condition of the cultural heritage resource should be assessed. The structural systems should be examined and conditions of various elements, materials, and finishes recorded. The technical analysis may involve engaging an architectural conservation expert to assist with the sampling of materials and finishes and laboratory or other analysis.

Technical analysis and studies might include:
- Scaffolding for access or use of technologies like drone
- Probes to examine structural systems and interior of walls
- Trench probes
- Removing select building components
- Nondestructive testing/imaging technology
- Leak investigation
- Materials and finishes analysis
- Additional professional services

Deliverables might include annotated drawings, photographs, samples, and written reports on conditions and findings.

Interviews and Consultations: Stakeholders knowledgeable about the history, physical aspects, and condition of the cultural heritage resource should be consulted and the information they provide should be captured and become part of the documentation. Additional information about the resource, its history, and changes over time might be gleaned from oral histories, already completed or undertaken as part of documentation.

Historic Structure Reports
The Historic Structure Report is a tool for compiling, organizing, and disseminating information gathered about a cultural heritage site. In the United States, the Historic Structure Report, commonly referred to as an HSR, is mandated for work on cultural heritage sites owned by the federal government or for projects supported with federal funding.

Defined by the National Park Service of the United States an HSR "provides documentary, graphic, and physical information about a property's history and existing condition...[and] addresses management or owner goals for the use or re-use of the property." However, sections of an HSR can be prepared in instances where an intervention or conservation project is not proposed and still serve as a valuable tool for collecting, formatting, and sharing information.

The purpose and value of an HSR includes:

- Description of key information on history and existing conditions
- Documentation to help establish significance key dates, periods of construction, and changes over time
- Compilation of graphic materials such as historic maps, drawings, and photographs
- Summary of findings from surveys, investigations, and studies, such as structural analysis and materials and finishes analysis
- Accessible reference document for key stakeholders
- Bibliography of archival and other information
- Resource for guiding additional research and investigation

Training in the documentation of cultural heritage resources, including preparation of Historic Structure Reports, is a core goal of the University of Florida’s Preservation Institute Nantucket.

Case Study: Hadwen House, Nantucket, Massachusetts, United States

Located on the island of Nantucket, thirty miles off the coast of Cape Cod, Massachusetts, the Hadwen House is a historical house museum owned and operated by the Nantucket Historical Association since 1965. The Association is a non-governmental organization with the mission of telling “the inspiring stories of Nantucket through its collections, programs, and properties.” Many of these stories focus on the period of history when Nantucket produced the majority of the world’s whale oil for burning lanterns and making candles. An example of the American Greek Revival style, the Hadwen House is named for its original owners, William and Eunice Hadwen. William Hadwen was a whale and silver merchant during the height of the Nantucket whaling era and the house is used to interpret the social, cultural, and architectural context of that time.

The last major intervention at the Hadwen House occurred in 1995. In preparation of significant conservation work and possible adaptive use, the Nantucket Historical Association is developing a master plan and has partnered with the Preservation Institute Nantucket to assist with documentation and prepare sections of a Historic Structure Report.

Laser Scanning

English Heritage defines 3D scanning (often referred to as laser scanning) as “the act of using a laser device that collects 3D coordinates of a given region of a surface automatically and in a systematic pattern at a high rate (as much as a million points per second) achieving the results in (near) real time.” There are a numerous systems and types of scanners for recording a variety of object scales, range, and accuracy. The principal product of laser scanning is a point cloud. Point clouds are generated through the registration and alignment of individual scans. Depending on size and density, point clouds can contain millions of points establishing the xyz coordinates of the surface of a building including its details and context. Products that can be generated from point clouds include, among others, two-dimensional, black-and-white line drawings in AutoCAD or another program, solid models, and video animations. The exterior and interiors of the Hadwen House were scanned by the University of Florida as part of the Envision Heritage initiative (for more information, visit www.dcp.ufl.edu). The resulting point cloud data will be used to aid in the preparation of existing conditions drawings. Orthographic images will be used to help record existing conditions.

3D Photogrammetry

Like laser scanning, photogrammetry is a process for recording an architectural element and objects in three dimensions. “Photogrammetry,” according to Karl Kaus, “allows one to reconstruct the position, orientation, shape and size of objects from pictures.” 3D photogrammetry produces a solid model with highly accurate information about the texture and surface of the element or object documented. Photogrammetry can be done using a high resolution digital camera and software such as Agisoft PhotoScan. 3D models created through photogrammetry can be combined with laser scanning point clouds.

Conclusion

Documentation is an integral part of conserving and managing cultural heritage resources. As demonstrated by the Hadwen House case study from Nantucket, Massachusetts, United States, archival and other research, on-site surveys, and technical investigations are essential when planning and implementing a conservation intervention, including the adaptation of a building or site. New technologies may assist in the documentation process. The Historic Structure Report, as defined by the United States National Park Service, serves as a model for how to organize and disseminate the information gathered and produced as part of the documentation process. Stakeholders and key decision makers should also recognize that documentation is an ongoing, cyclical process and establish protocols and procedures for periodically updating records.

5 (Ibid)

9 Boehler and Marbs, 3D Scanning and Photogrammetry for Heritage Recording, 292.
References


Historic Structures
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Abstract
The history of structures in the United States and Guyana have followed a similar path since both countries were colonized about the same time by European settlers who already shared a common building technology. The building technology history began in the New World with structures constructed of wood, stone and brick in the 17th and 18th centuries, advancing to metal and finally concrete as the countries became more settled and building technology developed globally. By the early 19th century cast iron was being introduced as a structural and decorative element in buildings. By the late 19th century concrete technology was introduced as was concrete block, the most ubiquitous building material of the past 100 years. Steel came into general use by the late 19th Century, followed soon after by reinforced concrete. Because of the inherent strength of these latter materials they have made possible the construction of the high-rise and tall buildings that now dominate the skyline of every city of any size across the globe. Although mid-20th century buildings are beginning to show their age and a small number are being recognized as landmark, or listed, buildings, when we speak of historic structures we usually mean those buildings constructed before that time. Specifically, we tend to consider historic structures in the New World as being built since the time of Columbus. Pre-Columbian structures are few and those remaining are rarely in need of the services of structural engineers. This paper discusses the materials of structure used to build in the New World in the past 350 years or so, some of the more common details used and the typical deficiencies we see due to the ravages of time and the environment. Finally we discuss some typical repairs to foundations, walls and framing elements.

In this paper we are defining “Historic Structures” as those built after the Columbian discoveries and before World War 2. These structures are commonly in need of repair using the skills of a structural engineer. They include stone and masonry buildings, timber structures and pre-World War 2 buildings made of cast iron, steel, reinforced concrete and other materials. We are not, in this paper, restricting our discussion to buildings of historical importance only. Indeed, as far as structure goes, there is often little to distinguish a landmarked (or listed) building from its equally old, but socially neglected neighbor. As a structural engineer we are often asked to help both.

There are, of course, many structures pre-dating our defined time period. At least in North and South America these tend to be structures with great anthropological importance and usually are treated as ruins. They, therefore, are seldom subjected to structural repairs beyond stabilization and conservation.

Some examples of historic structures include wood frame farmhouses, office buildings, tenements, glasshouses and institutions of learning.

Structural Materials
The materials of construction used in the buildings under consideration have evolved greatly over the past 400 years. Through the 18th Century virtually all buildings were a combination of stone, brick and timber. These materials were usually sourced relatively locally and constructed by skilled artisans employing time-tested methods passed from generation to generation. Beginning in the late 18th Century cast iron began to be used, first in bridges and then in glasshouses followed by general use in buildings as industrialization advanced and transport networks exploded. Further advances in metallurgy resulted in the development of wrought iron and then steel as structural materials. Concrete also advanced in use as the chemistry of the material became better understood and manufactured cements overtook the natural cements used throughout the 19th Century. By the turn of the 20th Century, reinforced concrete was coming into wide use, even though its essential properties were poorly understood.

Stone
Stone is the most elemental of the structural materials used throughout human history, beginning with caves. For the period under our consideration stone was used in the building of foundations almost exclusively. Earlier periods also used stone for bearing walls or as facing for bearing walls when brick came into more common use. Foundation stone was always sourced locally and used in rubble construction most commonly. Less commonly seen are foundations of coursed stone construction.

When used in foundations stone was either laid dry or with mortar. Prior to the mid-19th Century that mortar was most likely to be made of sand and lime. When used as facing in front of brick walls, stone was almost always mortared to achieve weather tightness of the building envelope. This facing stone is most often coursed and, with improved transportation networks, sometimes sourced from long distances in more grand buildings.

As a structural material, stone could vary greatly in its compressive strength and resistance to the elements. Granite is generally the strongest stone with exceptional weather resistance. Sandstones, on the other hand, are usually half as strong as granite with considerably less ability to resist weather degradation. Limestone and marble fall in between those properties between granite and sandstone.
The skill of the workers building with any material greatly influences the longevity of the structure. This might be due to the way the material is fabricated, its orientation in the finished work, its placement and size and finally, how it is connected to the other structural materials of the building. For stone foundations the thickness of the walls and quality of the mortar also affects the longevity of the construction.

Brick

Brick as a structural material can be found in some of the earliest structures, mostly starting in the 18th century. It was often used in foundations, but most often employed as the material of choice for exterior walls. Originally sourced relatively locally, as transportation networks developed and industrialization evolved, brick was sourced from more distant manufacturers. As a structural element brick is almost always used in mortared construction. As with stone, early mortar was primarily lime and sand until the mid to latter part of the 19th Century when cements were used to improve the quality and strength of the assembly.

The quality and appearance of brick vary greatly. Almost from the beginning and continuing throughout this history, there has been a distinction between common brick and face brick. Face brick was used in the public exterior faces of the building and was of a higher quality and superior appearance. Common brick was used for rear walls, backing walls and interior partitions and piers.

As a manufactured product, brick strength and weather resistance varies considerably. It is substantially weaker than stone, in general, and more subject to the quality of construction due to its smaller size and greater dependence on the quality of the mortar used and the quality of construction. The quality of construction varies considerably from the exceptional to the bizarre. Older buildings, in particular, are susceptible to long term degradation of the mortar requiring substantial rebuilding as an intervention.

Timber

Like stone, timber is a natural material and can be considered the other elemental structural material. Due to its ease of fabrication and geographic ubiquity it was almost always sourced locally. Its use as a foundation material was probably extensive but ill-considered since few of those buildings survive. Its common use was as framing material for walls and floors and for floor finishes. Depending on the availability, softwoods were preferred due to their ease of fabrication. Hardwoods are often seen in framed construction and as posts due to their usually high quality wood exhibiting few knots or other inherent defects. Because of the ease of fabrication, the quality of workmanship varies greatly. For timber the quality of construction often influences the weather resistance of the structure as well.

Cast Iron

The first use of cast iron in the West as a structural material was in England for the Iron Bridge in 1781. Other bridges followed and cast iron elements started to be used in buildings by the turn of the 19th Century. As industrialization evolved cast iron became more widely available and its use expanded. Early on it was used in space frames. As wrought iron and steel developed they supplanted cast iron, first as beams and girders and finally, by the beginning of the 20th Century cast iron was phased out in favor of the cheaper and more reliable steel.

Although subject to manufacturing defects, cast iron used in structures that survive is usually of high quality and very strong in compression. Its compressive strength exceeds that of steel. But in tension it is considerably weaker and its brittleness is of some concern where ductile behavior is wanted. It did begin the progression of long span structures and modular construction that culminated in the steel skyscrapers of the 20th Century.

In general the quality of construction is high for cast iron members and the weather resistance is superior to steel.

Wrought Iron

As a structural material, wrought iron did not come into common use until the mid-late 19th Century. Although manufactured as I beams and other structural elements for a number of years it was largely surpassed by mild steel by the last quarter of the 19th Century making its structural use brief and relatively small. Its structural properties are similar to steel and it can be welded. In use the structural quality is high and its resistance to weather is comparable to steel.

Steel

As a structural material, steel came into widespread use beginning in the mid-19th Century. Once manufacturing processes evolved to solve the problem of brittleness in the earlier formulations, the high tensile strength, the ease of fabrication and relative ease of fabrication began to push out the use of wrought iron almost immediately and later, cast iron. Due to the complexity of fabrication, steel was always distantly sourced and relied on sophisticated transportation networks for its fabrication and delivery of finished components. Its use has dominated high rise and long span construction since the 19th Century. It has balanced engineering properties in tension and compression, can be easily welded and fabricated and has good resistance to weathering with proper coatings and maintenance. Steel’s development coincided with the advancement of structural engineering methods of analysis, resulting in fairly sophisticated design, manufacturing and construction. This has resulted in very good construction quality in general.

Concrete

Cementitious materials have been used for thousands of years. In the New World, the use of concrete as a framing material was generally confined to civil structures until the latter half of the 19th Century when Portland cement manufacturing came into being and higher concrete strengths were being achieved. Beginning in France around 1850, reinforced concrete developed greatly in the latter half of the 19th Century and came into general use as a framing material in the beginning of the 20th Century. The introduction of steel to concrete had the effect of balancing concrete’s weak tensile properties for those of steel. The use of steel also greatly improved the ductility of the construction.

Like steel, the development of reinforced concrete coincided with the advancement of structural engineering methods of analysis, resulting in fairly sophisticated design, manufacturing and construction. This has resulted in poor to excellent construction quality. Later innovation in concrete mix designs resulted in the introduction of lightweight concrete for floor slab construction. One of these concretes – cinder concrete – came to replace the use of terra cotta tiles as a flooring material in high-rise construction beginning in the 1910s.
Depending on the quality of construction, concrete can have poor to excellent weathering properties, with corrosion of the reinforcement being the most common problem.

**Strength of Materials**

Comparison of the allowable stresses of the various structural materials used in construction follows:

<table>
<thead>
<tr>
<th>Material</th>
<th>Compression Stress</th>
<th>Bending Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brick</td>
<td>200 psi [1,397 kPa]</td>
<td></td>
</tr>
<tr>
<td>Timber</td>
<td>1,000 psi [6,895 kPa]</td>
<td>Bending</td>
</tr>
<tr>
<td>Cast iron</td>
<td>10,000 psi [68,950 kPa]</td>
<td>Compression</td>
</tr>
<tr>
<td>Wrought iron</td>
<td>12,000 psi [82,740 kPa]</td>
<td>Bending/Compression</td>
</tr>
<tr>
<td>Steel</td>
<td>15,000 psi [103,400 kPa]</td>
<td>Bending, c. 1900</td>
</tr>
<tr>
<td></td>
<td>20,000 psi [137,900 kPa]</td>
<td>Bending, c. 1930</td>
</tr>
<tr>
<td>Terra Cotta (Flat arch)</td>
<td>700 psi [4,826 kPa]</td>
<td>Compression</td>
</tr>
<tr>
<td>Concrete</td>
<td>3,000 psi [20,680 kPa]</td>
<td>Compression</td>
</tr>
<tr>
<td>Cinder Concrete</td>
<td>700 psi [4,826 kPa]</td>
<td>Compression</td>
</tr>
</tbody>
</table>

**Structural Systems**

It is extremely rare to find a building composed of only one material. Each material serves a different purpose most efficiently in terms of cost and weight. Following is a table summary of the most common combinations of materials found in historic structures.

<table>
<thead>
<tr>
<th>Foundations/Walls</th>
<th>Interior Framing</th>
<th>Floors</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stone/Brick</td>
<td>Timber</td>
<td>Timber</td>
<td>Bearing Wall</td>
</tr>
<tr>
<td>Brick</td>
<td>Timber</td>
<td>Timber</td>
<td>Bearing Wall</td>
</tr>
<tr>
<td>Timber Frame</td>
<td>Timber</td>
<td>Timber</td>
<td>Framed</td>
</tr>
<tr>
<td>Timber</td>
<td>Timber</td>
<td>Timber</td>
<td>Bearing Wall</td>
</tr>
<tr>
<td>Brick (Steel)</td>
<td>Timber</td>
<td>Timber</td>
<td>Bearing Wall</td>
</tr>
<tr>
<td>Cinder Concrete</td>
<td>Cast Iron</td>
<td>Concrete/ Masonry</td>
<td>Bearing Wall</td>
</tr>
<tr>
<td>Steel/Framed</td>
<td>Concrete/ Masonry</td>
<td>Framed</td>
<td></td>
</tr>
<tr>
<td>Brick Infill</td>
<td>Steel/Framed</td>
<td>Concrete/ Masonry</td>
<td>Framed</td>
</tr>
<tr>
<td>Steel/Framed</td>
<td>Concrete</td>
<td>Framed</td>
<td></td>
</tr>
<tr>
<td>Concrete Framed</td>
<td>Concrete</td>
<td>Framed</td>
<td></td>
</tr>
</tbody>
</table>

**Typical Details**

Sharing a common history, certain details of construction are seen often. Although, with experience an observant engineer will gradually come to acknowledge that each building is unique and assumptions about hidden conditions is often wrong.

**Materials and Cost**

The main driver of construction technology is cost – the cost of land, the cost of labor, the cost of materials, and the cost of time. Cheaper and stronger have been the most influential factors in this development with reliability and beauty a distant consideration in most cases. Following is a comparative cost table from 1932 of the most prevalent floor systems then in use. For reference the live load capacity of each system is also provided.

<table>
<thead>
<tr>
<th>Flooring System</th>
<th>Live Load</th>
<th>Cost per sq ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood Joist</td>
<td>15 psf</td>
<td>80.29/sq ft</td>
</tr>
<tr>
<td>Flat Terra Cotta Arch</td>
<td>80 psf</td>
<td>80.73/sq ft</td>
</tr>
<tr>
<td>Cinder Concrete (catenary)</td>
<td>70 psf+</td>
<td>80.59/sq ft</td>
</tr>
<tr>
<td>Reinforced Concrete</td>
<td>110 psf</td>
<td>80.69/sq ft</td>
</tr>
</tbody>
</table>

**Investigation**

Conducting an inspection of an existing building is a highly customized exercise. Each building is different, each Owner is different and each inspection usually has a different purpose. There are industry guidelines available to help the engineer with organizing and conducting the inspection. Some of the more common standards are:

- SEI/ASCE 11 Guidelines for Structural Conditions Assessment
- ACI 201.1 Guide for Conducting a Visual Inspection of Concrete in Service
- ASTM E2841 Standard Guide for Conducting Inspections of Building Facades for Unsafe Conditions

These are useful guides for general orientation to building inspections. Some of the factors to consider when organizing an inspection of a building include:

- What is the purpose of the inspection:
  - General assessment prior to purchase?
  - Specific problem identified by an Owner, tenant or manager?
  - Planned project including partial or wholesale renovation? Or a new enlargement?
  - Legally required façade inspection?
- Who owns the property:
  - Homeowner
  - Building owner
  - Business
  - Institution (college, school, etc.)
  - Government agency
- Where is a property located:
  - Flood zone
  - Landfill
  - Mountainside
Documentation & Conservation

by either conventional equipment or laser instruments. Load cells and other measuring instruments are most often used in conjunction with these tests and finally after the loads are removed to see if a permanent deflection was induced. Specialized loads are to be measured after the dead loads are applied, then again after the live loads are applied and finally after the loads are removed to see if a permanent deflection was induced. Specialized load cells and other measuring instruments are most often used in conjunction with these tests and require specialized equipment and operators. Specialized surveys might also be necessary by either conventional equipment or laser instruments.

Having original drawings available is often a major benefit to a project. Sadly, they are almost never available prior to the turn of the 20th Century and even then only sporadically. Continuous ownership and the kind of ownership usually help. Government agencies and universities are somewhat more likely to maintain these records. Professional business owners are sometimes in possession of the drawings. Some of the sources for finding original documentation include:

- Building owners and managers
- Local Building Department
- Local Historical society
- University library
- Local search service
- Other libraries, collections, etc. of historical documents and architectural works

Field Inspection

Depending on the project, field inspections might require simple physical access for a visual inspection to more aggressive requirements requiring scaffolding, selective removals, test pits, etc. The inspection itself may require in situ non-destructive or minimally destructive testing and removal of materials for lab testing for concrete strength, metal weldability, mortar constituents, etc. The testing may get require even greater effort in the case of load tests or major foundation inspections. Many, many means and methods are utilized in field inspections depending on the purpose of the inspection, the materials of construction and the project budget.

To conduct such inspections the assistance (and cost) of contractors is often required to provide access, selective removals, and subsequent patching. Depending on the testing required specialty inspection agencies may have to be retained for field and/ or laboratory testing.

Structural load tests require careful planning, major disruption and are therefore seldom used. Building codes prescribe a methodology which should be modified for the particular case. Commonly, loads are imposed on an existing floor or element with 150% of the dead load as well as a reduced live load. The load remains in place for a minimum of 24 hours. Deflections are to be measured after the dead loads are applied, then again after the live loads are applied and finally after the loads are removed to see if a permanent deflection was induced. Specialized load cells and other measuring instruments are most often used in conjunction with these tests and require specialized equipment and operators. Specialized surveys might also be necessary by either conventional equipment or laser instruments.

Monitoring

Quite often the result of field investigations results in finding cracks in the structure. Sometimes these are normal and to be expected. This is especially true for concrete and timber. Other times the size, orientation, location and material affected raise a concern but the origin of the crack in terms of time or cause or both cannot be determined. It is then that crack monitoring is used to fix a point in time and dimension to help assess the severity of the crack. The issue then becomes – is the condition fixed or progressing? If fixed then there might be an option to do nothing but continue monitoring. If progressing then the diagnosis of cause and means of repair become necessary.

The simplest means of monitoring cracks is by use of a tell-tale device. This is nothing more than a 2-part strip installed over the crack with a zero target for horizontal and vertical movement. One part is fixed to one side of the crack and the other side is fixed to the other side. The monitor is checked at a defined frequency depending on the environment. The frequency might be weekly, monthly, seasonally or even yearly to account for seasonal expansion and contraction of the building.

Oftentimes crack monitors are used in conjunction with an overall structural investigation including finite element analysis, load tests, etc.

Deficiencies

The type of construction usually determines the deficiencies encountered during an inspection. For foundations, the materials and environmental conditions are unique. For above grade construction quality of materials and construction come more into play, as does the variability of the environment over time. Following are some of the more typical deficiencies encountered.

Foundation Deficiencies

Typical foundation deficiencies include:

- Ground settlement with differential settlement leading to wall and floor cracks above, wall deflections and floor slopes
- Settlement caused by overstress of the soil, leaks from outside or building plumbing
- Failure of foundation walls. May be due to mortar loss, poor original construction, deficient original design, etc.
- Wall failure caused by adjacent work next to or below the level of foundations
- Loss of mortar or loss of cementitious bond due to moisture ingress over a long period of time

Bearing Wall Deficiencies

Typical bearing wall deficiencies include:

- Differential settlement resulting in cracking or subsidence
- Overstress causing crushing or buckling
- Bowing or out of plumb walls caused by settlement, loss of mortar or poor tie-in to interior structure
- Leaking exhibited by efflorescence and causing loss of mortar and spalling

Timber Deficiencies

The quality of timber in most historical buildings is high – in the grade range of #1 or better usually. Unfortunately the structures themselves are usually under-designed and/ or poorly
detailed or constructed. Added to this is the relative susceptibility of wood to fungal and insect degradation and loss of strength over time. Typical timber deficiencies include:

- Observable symptoms – deflection, cracks, softness, easily pierced with an ice pick, etc.
- Overstress resulting in cracking
- Insect infestation (Termites, etc.)
- Fungal infestation (Rot)
- Excessive creep due to age
- Poor original construction joinery (mortar and tenon joints especially)
- Plumbers

Flat Arch, Cinder Concrete Floor Deficiencies

With the advent of steel framing in the late 19th and early 20th Century there came a flood of systems to create fireproof floor systems. Two of the most common in the United States included terra cotta flat arch systems and cinder concrete catenary floors. Many of these systems were patented as were dozens of precast and other concrete based inventions. The strength of the flat arch and cinder concrete floors is remarkable for their weight.

Nevertheless, they can be subject to physical damage and in the case of cinder concrete, severe rusting of the mesh in the presence of long-term moisture. The high sulfur content in cinder concrete forms sulfuric acid in the presence of water and actually eats the reinforcement. It is not uncommon to see slabs where only the faint outline of the rusted reinforcement is left. Most often these systems are in good to excellent condition unless subjected to physical damage or water. The physical damage is usually caused by plumbers.

Analysis and Design

Once deficiencies are documented, materials and assemblies tested, cracks monitored, etc. a proper diagnosis can begin. Too often engineers fix a symptom that if observed in new construction is a genuine problem. Often these fixes are designed to satisfy all the provisions of the latest building codes for new construction. Historical disasters and architectural abominations are often the result. It is important, therefore to first diagnose the cause of the problem as definitively as possible and then develop appropriate repairs, stabilizations or even nothing at all. Very often with historical buildings cracks, sloping members, deflections, etc. are observed. This is often a condition of age. Unless there are real serviceability issues the best course many times is to do nothing, except perhaps monitor the problem.

Depending on the problems encountered design checks and analysis are often required. The first issue is to reassess the loads the building is currently subjected to and the legally required loads to be used in the analysis. In the case of old buildings bringing them up to the standards of modern codes for seismic or hurricane loads might be prohibitive on several counts. This is an important step requiring full disclosure and discussion with the client, architect and other interested parties. Sometimes this is the most complex hurdle in a project.

With the loads agreed analysis can be undertaken. This might entail simple member capacity checks or three-dimensional finite element modelling. For masonry arches and domes, specialized software and engineering is required.

Construction

Once analysis is complete and repairs determined to be necessary and designed construction can commence. Depending on the nature of the repairs it is often necessary to provide notification to adjacent building owners. In addition, some building codes require that a visual survey of adjacent properties be conducted to document pre-existing conditions. The sound and vibration of construction next door often coincides with the first time adjacent owners notice defects in their building.

Again, depending on the work to be done monitoring may also be prudent. This could include monitoring for vibration and noise and periodic surveys to document the plumbness of the affected structures.

Foundation Repairs

Foundation problems might include settlement, over-excavation of adjacent soils and over-stress of the soils. Interventions could include rebuilding, underpinning or helical mini-piles to restore the competency of the footings.

Bearing Wall Repairs

Repair of bearing walls can include rebuilding, repointing, façade re-pinning and framing tie-backs. For repointing it is often necessary to determine the constituents and strength of the existing mortar for esthetic and physical compatibility.

Timber Repairs

By far, the most common needed repair in historic buildings is the timber framing. It is often overstressed, excessively deflected and highly susceptible to rot and insect damage. Although popular as a structural repair in the 1980’s, epoxy is rarely used for structural repairs nowadays. More common repairs include replacement in kind either wholly or in sections, sistering, plate reinforcing, etc.

Flat Arch and Concrete Floor Slab Repairs

As noted above, concrete flat arches are most often subject to physical damage causing removal to one or more of the arch segments. Cinder concrete catenary floors can be severely damaged by moisture. Both are often required to be modified or infilled for various reasons. Repairs generally consist of installation of new lightweight concrete on steel deck. For catenary systems the wire mesh needs to be welded to the tops of the beams adjacent to the opening.

Reconstruction

In very rare cases reconstruction of an historic building is warranted. In 2003 a reconstructed house opened in the Peabody Essex Museum in Salem, Massachusetts. It was built in the 18th Century in a small village in Anhui, China. It was dismantled, piece by piece, catalogued, shipped to Salem, and rebuilt within the museum. Because of the new use and location modern loads for seismic and assembly loading were used to design the rebuilt structure.
Abstract

Architectural preservation theory is the foundation that guides planning, design and management of heritage sites. Theories have evolved a lot since the 1960’s, when the basic principles for architectural preservation were written, and the academic field of historic preservation commenced. Current theories use a value-led management model. In this model, design choices are guided by clearly articulated preservation objectives. The objectives respect the heritage values of the site, and become the policy for retention of historic significance, as well. When correctly applied, the preservation objectives match intended uses, enhance public education programs, guide conservation treatments, dictate maintenance practices, and inform future capital projects. Community engagement is always an essential component of the method, as are exemplary research and documentation. When the site is highly significant, peer advisory bodies are often engaged for quality control.

Architectural preservation theory can be understood by review of certain international charters and declarations, plus an understanding of the universal values which make heritage sites relevant to present-day people. Each document has made a significant contribution to contemporary theory. This paper will consider the documents below to explain the salient points and intellectual advancements offered by each:

1965 Venice Charter
1972 World Heritage Convention (and subsequent Operating Guidelines, updated periodically)
1979 Burra Charter (revision 2013)
1994 Nara Document on Authenticity
1996 Declaration of San Antonio
2000 – 2002 publications on value-led planning for heritage sites
2007 Charter on Interpretation and Presentation of Cultural Heritage Sites (a.k.a. Ename)

People often wish to know the quick answers to seemingly simple questions regarding care of historic buildings, such as appropriateness of substitute windows. However, choices and solutions cannot universally be applied to all situations. Historic preservation is a design endeavor, and each project requires application of a decision-making methodology. Many factors must be considered.

Historic preservation is a process of design for continuity and the management of change within an existing heritage context. Application of design theory is necessary to solve problems. Each case may require a different approach. For example, an engineer can provide several options for repair of a structural problem, but then a design choice is necessary to pick the one most appropriate. How is the choice about an appropriate treatment made, and then consistently applied to multiple choices in a project?

Fortunately, there is clear direction to be found in international guidelines, charters and declarations. Decisions can be firmly grounded in well-established principles. A methodology of value-led planning can be employed to produce a guiding document that articulates the preservation philosophy, objectives or strategy for a project, on a case-by-case basis.

Property owners and managers should understand that there are four types of tangible remains to be preserved—objects, buildings, landscapes and districts. Each type requires a different approach to preservation decisions. Architectural preservation theory is not suitable to objects, but may be applied to historic buildings (including all types of structures and other man-made features that may exist in a place), as well as cultural landscapes and historic districts or heritage zones. Objects, meaning moveable artifacts, are typically housed in museums and collections facilities. Objects in museums are exempt from functional performance and have their own set of conservation theories.

Before commencing a large project at a heritage site, big questions need to be asked, and the answers written down for everyone to understand. Why preserve the site? What are benefits of a tangible past? What are the motivations for the project? Do the historic preservation endeavors have contemporary relevance? How will heritage be used, i.e., made to perform, for the good of people? The answers to these questions will illuminate the values guiding the work. These values will inevitably fall into one of four categories: educational, political, social and economic.1 For large projects of national and international importance, additional effort will be needed to produce well-articulated values for the specific project to support the rationale or philosophy that will guide all work and future projects at a heritage site. Factors to be considered include the significance of the historical period.

Historical significance is the first thing for preservation professionals to establish and thoughtfully review before any act of protection, conservation treatment or capital improvement. All design choices, as well as opinions about appropriateness of those choices, must be based in the facts of historic significance. This significance necessarily includes connections to themes and periods of history. If not already established, then a historian must conduct research and write a statement of significance.

Each historic building or place has varying capacity to convey its historical significance to an observer. This capacity to convey meaning is called integrity. Heritage resources with high integrity typically have a high percentage of surviving historic material from the period of...

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historical significance. In many instances, the period of historical significance can be quite broad, with meaning to be found in multiple themes of history. When history interpretation (educational) programs exist, as they often do at heritage sites, they will inevitably be prioritized to focus efforts on interpretation of the period(s) believed to be of greatest historical significance. Decision-makers must recognize that the period of physical appearance is not always coincident with the period of interpretation. In these cases, visitor confusion may result and only be alleviated by expanding the breadth of historical themes or periods interpreted. Alternatively, some owners prefer to change the physical appearance so that it becomes more closely aligned with the period of interpretation. The changes necessary to achieve a period restoration can be extensive and thus destructive. Would-be restorers need to exercise caution to be sure the gains warrant the loss of historic fabric that must be removed.

For example, Mission San Antonio de Valero in Texas, more popularly known as The Alamo, has a physical appearance representing the present day. Yet, the primary focus of educational programming and history interpretation concerns the battle of 1836, a pivotal event in history that remains heavily associated with the identity of Texas. The full period of historical significance, however, spans over thousands of years, including Native American heritage, the first Spanish contact with natives, Spanish colonial endeavors of the eighteenth century, a brief period of independence as a Republic and then statehood in the nineteenth century. Historic significance at The Alamo even includes the period of early historic preservation treatments that occurred in the first quarter of the twentieth century. The Alamo is presently in the midst of an extensive master planning effort to determine best strategies for resolving the confusion of typical visitors who strain to see a battleground site that is no longer present.

After establishment of the historical significance, one can consider next steps in the process of determining appropriate preservation treatments. Throughout, everyone’s efforts must be guided by principles and ethics. Over the past 50 years since historic preservation became a field of study and an academic discipline, many principles have been postulated and adopted by practitioners. The most commonly recognized are listed below in Table 1.

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<th>Table 1. Some Basic Principles and Ethics of Historic Preservation practice</th>
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<td><strong>Value</strong></td>
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<td>Do no harm</td>
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<td>Honesty</td>
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<td>Legibility of interventions</td>
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<td>Participation/ inclusion of stakeholders</td>
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<td>Fiduciary responsibility</td>
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<td>Sustainability/ longevity</td>
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<td>Reversibility (when feasible)</td>
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The above principles are present in the many guidelines, charters and doctrines that have been written by international advisory bodies. Most notable among these are the:

- International Charter for the Conservation and Restoration of Monuments and Sites, also known as the "Venice Charter," 1964;
- UNESCO World Heritage Convention, 1972, and subsequent Operational Guidelines (current revision, 2015);
- The Australia ICOMOS Charter for Places of Cultural Significance, also known as the "Burra Charter" (1979 – current revision, 2013); and
- Nara Document on Authenticity (1994): The Venice Charter, still relevant after more than five decades, gives the world a good definition of "historical monument," a definition that is inclusive, and less elitist than was typical of work in first half of the twentieth century. The Venice Charter, a 2-page document, refers to monuments as "common heritage" of humanity, and advises there is a "common responsibility" to preserve heritage for future people. The "monument" definition includes single structures, as well as urban or rural settings, from great to modest. Thus it establishes the idea that we may have historic districts representing broad themes of history as valid and worthy for preservation.

The Venice Charter goes on to "codify" principles and types of preservation treatments, laying the foundation for contemporary preservation theories. The Charter tells us maintenance is very important and the function of monuments must be appropriate and useful. Monuments should not be adversely changed by additions or demolitions, nor should they be divorced from their setting by removal of surrounding structures, insensitive development or relocation of the monument. Restoration is defined as a treatment to "reveal" value of the monument from an earlier period, with care for original materials, honest scholarship, and respect for all periods of history and without undue conjecture. The Venice Charter further explains that restoration is only to be pursued in "exceptional circumstances" warranted by the high value of material to be revealed and relatively low value of what must be destroyed in the process.2

The 1972 UNESCO World Heritage Convention, and corresponding Operational Guidelines updated periodically at meetings of the World Heritage Committee, followed the Venice

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Charter as the next major international document regarding architectural preservation theory. In these Operational Guidelines we find the concept of "outstanding universal value" of heritage, based on attributes of authenticity and integrity. Outstanding Universal Value is "cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity." A careful reading of the operational guidelines shows six separate attributes of integrity, and for authenticity there are ten attributes that can be individually evaluated for cultural heritage.

People value authenticity at historic places. No one prefers reproductions over reality. The word authenticity is used often in architectural preservation theory. Authenticity is an educational value, primarily. An authentic thing is honest, not false. We expect honest display of real, surviving heritage at historic places.

Authenticity was clarified and defined at a 1994 meeting in Nara, Japan, and the "Nara Document" is now a referenced document in the World Heritage Operational Guidelines. The Nara Document speaks to the value of cultural heritage diversity, and the need for all cultures to respect and judge a culture in its context. Notably, the Nara Document tells us that culture may exist in both tangible and intangible expressions worthy of preservation.

At Drayton Hall in South Carolina, authenticity takes the form of a plantation house not restored to what it once looked like, but preserved in its present condition of disrepair, with the last coat of paint, now peeling, applied to the walls in the 1920s. A visit to Drayton Hall provides an educational value that has not been manipulated by the speculation required for a restoration. At the President Lincoln Cottage National Monument in Washington, D.C., impactful authenticity exists in the building materials touched by Abraham Lincoln. The materials offer a physical, visceral connection to the past. At Lerma’s Nite Club, a dance hall in Texas, the unpretentious commercial structure is the celebrated home of a multi-cultural musical genre unique to the region. Lerma’s gives the intangible value of Conjunto music and dance, an authentic cultural heritage at the place where it belongs.

The historic preservation profession has theoretical guidelines, principles and methods for protection of heritage, including authenticity. These are found in three core documents: the World Heritage Operational Guidelines, the "Nara Document" on authenticity, and the "Burra Charter." The Burra Charter, refined several times over the decades since it was first brought forward by ICOMOS Australia in 1979, gives us a process for consideration of multiple perspectives on heritage, a process of inclusion that is necessary to understand the full meaning of a place. The Nara Document opens the door to understanding intangible heritage, the importance of cultural diversity, and explains that heritage primarily belongs to the people who created it:

- Art. 7. All cultures and societies are rooted in the particular forms and means of tangible and intangible expression which constitute their heritage, and these should be respected.
- Art. 8. Responsibility for cultural heritage and the management of it belongs, in the first place, to the cultural community that has generated it, and subsequently to that which cares for it.

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The World Heritage Operational Guidelines document references Nara and sums up the matter of authenticity thusly:

"Judgments about value attributed to cultural heritage, as well as the credibility of related information sources, may differ from culture to culture, and even within the same culture. The respect due to all cultures requires that cultural heritage must be considered and judged primarily within the cultural contexts to which it belongs." 6

So, we must ask at the outset of every design endeavor, to whom does the heritage belong, and in what cultural context was it created?

The above referenced documents alone do not provide enough guidance for professionals to navigate the myriad decisions necessary to complete a successful historic preservation project. The gap between theory on preservation and practice is bridged with value-led planning methods. Exemplary writings on value-led planning emanated from various professional dialogues convened by the Getty Conservation Institute (GCI) between 2000 and 2002. 7

Scholars at the GCI divided the values of cultural heritage into four general categories: educational value, economic value, social value and political value. Consideration of these values is unique to the design issues and management of heritage sites, and is not found in other forms of property management. The heritage values have contemporary relevance because they are the values of living people. In San Antonio, for example, the values of the San Antonio Missions include:

- Cultural Identity: the “DNA” of place
- Spirituality: religious worship and memory
- Familiarity for locals and repeat visitors
- Aesthetic Beauty of landscape and buildings
- Recreation offered by parks and open space
- Differentiation: the Missions make San Antonio unique
- Continuity of intangible heritage: events, traditions, celebrations
- Surviving integrity which is the evidence of past events
- Patina: the visible layers of time
- Association: quality added by proximity to outstanding historical significance.

Value-led planning offers an approach to decision-making that is different from the pure scientific conservation of materials. For example, preservation of a wooden totem pole carved by Native American tribes in the Pacific Northwest region of the Americas is scientifically achievable, but the cultural purpose of a totem, its value to society, calls for it to decay naturally, without conservation. 8 Likewise, the preservation treatments of cultural property must be preceded by thoughtful analysis of what makes the place historically significant, and then the values of the place perceived by contemporary people.

Both authenticity and integrity are key attributes of the “outstanding universal value” that is central to the concept of World Heritage cultural sites. Sites worthy of inscription must have large quantities of both. Best practices for capital projects and management plans at any historic site should respect and retain the attributes of authenticity and integrity. The World Heritage Operational Guidelines give us specific information, as follows:

"The ability to understand the value attributed to the heritage depends on the degree to which information sources about this value may be understood as credible or truthful." 9

"...properties may be understood to meet the conditions of authenticity if their cultural values...are truthfully and credibly expressed through...form and design; materials and substance; use and function; traditions, techniques and management systems; location and setting; language and other forms of intangible heritage; spirit and feeling..." 10

"the physical fabric of the property...should be in good condition, and the impact of deterioration processes controlled." 11

"Integrity is a measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes. Examining the conditions of integrity, therefore requires assessing the extent to which the property:

- a) includes all elements necessary to express its Outstanding Universal Value;
- b) is of adequate size to ensure the complete representation of the features and processes which convey the property’s significance;
- c) Suffers from adverse effects of development and/or neglect." 12

Architectural preservation theory tells us that the historical significance, attributes and values of a heritage resource should be listed, described and clearly stated at the outset. Sites of higher importance demand higher levels of attention and effort. The scholarship of research methods must be exemplary. Inclusion of all stakeholders in the process is essential. But then what? The descriptions and statements do not equate to a plan of action; they are merely criteria guiding good design and management plans.

Design choices and management plans are best preceded by a written articulation of proposed “objectives” which justify short and long-term treatments, projects, programs and maintenance. This step is essential for places of national and international significance. The statement of objectives goes by many names – preservation plan, philosophical approach, design strategy – yet always must achieve the same purpose, which is to rationalize future change. Remember, historic preservation is a process of design for continuity and the management of change. Even basic acts of maintenance are change, and must be informed and guided by written objectives. This is the moment in the process when the grand plan is revealed and recorded for posterity.

The preservation objectives can offer the rationalization that will guide many things at a historic site. Of particular interest to architectural preservation are the approaches to physical treatments of built features and materials in large-scale, capital improvement projects. The basics are listed

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6 World Heritage Committee, "Operational Guidelines," paragraph 81.
7 Avrami, Mason and de la Torre, Volunteers.
10 World Heritage Committee, "Operational Guidelines," paragraph 82.
11 World Heritage Committee, "Operational Guidelines," paragraph 89.
In all cases, there is an obligation and necessity to determine the objectives in advance. Once written or otherwise understood uniformly by all involved, the long-term preservation objectives become a guiding document for many aspects of historic site management. The primary purpose of knowing and following contemporary architectural preservation theory is to develop good and appropriate objectives.

The contemporary theory of architectural preservation postulates that a value-led approach to planning, with due consideration of tangible and intangible heritage values, supported by proper methods of research and investigation, will lead to the best results. In the process of decision-making at historic sites we must recall always the rationales and motivations for preservation planning, design and construction:

- Documentation – if you can’t define it, you can’t keep it.
- Awareness, recognition, and inclusion of cultural heritage in present-day activity.
- Increased capacity for good design choices.
- Better preservation objectives for historic places.
• Prioritization from the macro level: informed growth and economic development; to the micro level: re-use potential.
• Continuity of cultural heritage into the future.
• Retention of the values important to people.

Figure 7. San Antonio Charro Association is an element of intangible heritage

References


An Introduction to the Historic Architecture of Guyana
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Abstract

Prior to European colonization in the early seventeenth century, the inhabitants of Guyana were the Amerindian peoples. The structures of these peoples can be described as simple, but are recognized as being climatically efficient. There is no existing Indigenous building we can describe as historic. The first European settlements in Guyana were Dutch, beginning with the small Fort Kijkoveral on an island in the Mazaruni River. Two other Dutch sites of importance are Fort Island near the mouth of the Essequibo River, and Fort Nassau, about 90 kilometres (56 miles) up the Berbice River. The greatest evidence of Dutch presence in Guyana are the remains of their mid 18th century administrative complex on Fort Island – the extant remains being the ruins of the fort itself (Fort Zeelandia) possibly the 3rd fort on island, and the administrative building that housed a church, a slave vendue, and the Court of Policy. Our main British-period Colonial Architecture can be found in the capital city, Georgetown. The major historic buildings here are predominantly from the 19th century and early 20th century, a period in Great Britain and Europe that was marked by the profusion, and confusion, of fashions in art and architecture. Our buildings followed these trends though they were usually adapted for our climate and were built of wood, with a few exceptions. The introduction of indenture system after slavery was abolished brought new peoples (the Portuguese, the Chinese and the Indian) to these shores and they too (in some cases) made their own imprints on our colonial-period architecture, the more visible being the temples and mosques of the Indian indentured immigrants who arrived from 1838. Thus we can say with pride, that Guyana, particularly Georgetown, has a distinctive historic architecture of the 19th and early 20th centuries. These buildings made expressive use of timber, some interpreting the styles and decorations of the settlers’ homeland, and adapting such styles and decorations to the climate found here, though not successful in all cases. Unfortunately, we have been losing our historic buildings over the years owing to fire, neglect and “progress.”

Pre-Colonial Architecture

Prior to European colonization in the early seventeenth century, the inhabitants of Guyana were the Amerindian peoples. The built structures of these peoples can be described as simple, but are recognized as being climatically efficient. Usually built of round poles and various types of leaves, the buildings are comfortable in the tropical heat, and can be found in various forms throughout Guyana. Some are rectangular in plan with double pitch roof, as in the case of the Arawak people, whilst others may be circular in plan with a conical roof, as in the case of the Wai Wai people. Though there is no Indigenous building we can describe as historic, a spectacular contemporary example of Amerindian architecture in Guyana is a large Wai Wai structure, located in close proximity to the modern architecture of the Pegasus Hotel in Kingston, Georgetown. Officially known as Umana Yana, (meeting place) the original building was constructed in 1972 to house the first meeting, in this hemisphere, of the Non-aligned Movement of Third World Nations.

The Dutch Period (c. 1616 to c. 1803)

The earliest European settlements in Guyana were Dutch, beginning with the small Fort Kijkoveral on an island of about 1.5 acres in the Mazaruni River, c. 1616, near the mouth of the Guyuni River where the two rivers branched from the Essequibo River. This was the defence fort and seat of Dutch management of Essequibo from 1616 to 1718. Possibly this was the first Dutch structure in the Caribbean. The Dutch built solidly in the case of important structures such as forts and their administration buildings. Two other Dutch sites of importance are Fort Island near the mouth of the Essequibo River, and Fort Nassau, about 90 kilometres (56 miles) up the Berbice River. There are no remains standing higher than a few brick courses at the Fort Nassau site (mainly foundation walls) steps and graves. Possibly, there were three previous forts on or near this site and the existing remains may be that from the “early 1720s.”

The greatest evidence of Dutch presence in Guyana are the remains of their mid 18th century administrative complex on Fort Island – the major extant remains being the ruins of the fort itself (Fort Zeelandia) possibly the 3rd fort on island, and the administrative building that once housed a church, a slave vendue, and the Court of Policy. Built sometime between 1740 and 1744, the basic design of the small fort was fairly common for the period, having a lozenge-shaped redoubt (main quarters) surrounded by raised ramparts with projecting bastions at the four corners. Built of brick, this fort defended the capital of the Colony of Essequibo until 1784 when the Dutch decided to administer both Essequibo and Demerara from Stabroek, the new capital at the mouth of the Demerara River. Most of the outer walls of the redoubt and much of the ramparts are still standing though deteriorating. The approximately 264-year old brick Court of Policy is still standing and has recently been given a new lease on life by the National Trust of Guyana through extensive repairs and refurbishment. The building now houses the Dutch Heritage Museum administered by the National Trust.

There is evidence of Dutch colonial architecture and engineering elsewhere. For example, the brick river defences at Fort Island and that of stone at Saxacalli, Essequibo River. Also in Essequibo, on Hog Island, are the remains of a windmill thought to have built sometime in the late eighteenth century. The conical structure of granite blocks and bricks is about 8.5 metres (28 ft) high, built on a 1.8 metres (6 ft) high mound. There is also evidence of Dutch foundations for 1 Andrew Gravette, Architectural Heritage of the Caribbean (Kingston: Ian Randle Publishers, 2000), 30. Date of fort is given here as 1621, however. 2 Anna Benjamin, “Fort Nassau and the Van Wallenburg Thesis: A Re-evaluation of the Evidence,” Archaeology and Anthropology 12 (1998): 15. 3 Guyana Heritage Society, November (1983), 1.
The British Period: from 1803

Our British-period Colonial Architecture can be found in the capital city, Georgetown. The major historic buildings here are predominantly from the 19th and early 20th centuries, a period in Great Britain and Europe that was marked by the profusion, and confusion, of fashions in art and architecture. The styles of our buildings generally followed these trends though they were usually adapted for our climate and were built of wood, with a few exceptions. The introduction of indentureship after slavery was abolished brought new peoples (the Portuguese, the Chinese and the Indian) to these shores and some made their own imprints on our colonial-period architecture, the more visible being the Indian indentured immigrants who arrived from 1838, with their temples and mosques. There was no resident practicing Architect in the colony during the period and there seemed to be no demand for one, as implied by Rev Ignatius Cory Scoles, the designer of the Georgetown City Hall, writing in the prestigious journal, Timehri, in 1885.

The designers of our 19th and early 20th century buildings form an odd collection of priests, architects, civil engineers, contractors, a land surveyor, an insurance company manager, among others, and who, very likely were mainly from Europe. Of course, there are a large number of buildings for which we have no idea at this time, of their designers.

We can say with pride, however, that Guyana, particularly Georgetown, has a distinctive historic architecture of the 19th and early 20th centuries. These buildings made expressive use of timber, interpreting the styles and decorations of the settlers’ homeland, and adapting such styles and decorations to the climate found here, though not successful in all cases. Unfortunately, we have been losing our historic buildings over the years owing to fire, neglect and “progress.” Historic Georgetown, is a wooden city built on a plantation layout. The site was first occupied by Dutch about 1748 where they built a signal station (brandwagt) but the British gained control in 1781. The site was taken by French in 1782 and established as the capital, but returned to the Dutch in 1784. Then, in 1803, the colony of Demerara became firmly British and the town was named George Town in 1812, then Georgetown in 1842. Georgetown is the site of many 19th and early 20th century buildings, built mainly of timber, along avenues and canals, a reminder of its plantation origins.

For Christian religious buildings, the Anglicans used the Gothic Revival style of architecture, whilst the Catholics mainly employed the Neo-Classical, including the Italian Renaissance architectural style. Thus, we have the impressively high wooden St George’s Cathedral (1894) as the seat of the Anglican faith. This is 4th St George’s church, at or near this site; it was designed by British Architect, Arthur Blomfield who never visited the site. In fact, there are some British writers who doubt that Blomfield was the designer. At 43.6 m (143 ft) high, it was at one time said to be the tallest timber building in the world. The building is a local version of Gothic Revival architecture with pointed arches, vaulted ceiling, clerestory windows, and with, originally, black-and-white finish internally and externally. A fine interpretation in wood, of Italian Renaissance Architecture was the usual description of the Church of the Sacred Heart (1861) our only example of this style, which was lost by fire in 2004, unfortunately. A small simple rectangular building when opened (incomplete) in 1861, the final building was a series of additions in the 1880s, then early in the last century and even during the 1950s. The major growth period (1870s/1880s) was the work of an Italian-trained architect/lay priest – Cesar Castellani. Fire has been, and still is, a great threat to our historic timber buildings. When in 1913 the timber Gothic Revival St Mary’s Roman Catholic Cathedral (1868) was destroyed by fire, it was decided not to rebuild in timber and the solid ferro-concrete Cathedral of the Immaculate Conception (1925) was constructed on the same site on Brickdam, in the medieval Romanesque style. Huge and imposing, the building is still without its tower and spire. The oldest religious building in Georgetown, the St Andrew’s Kirk, was begun 1811, and opened, though incomplete, in 1813, as a Dutch Reform Church. Later, a joint venture between Scots and Dutch congregations allowed the building to be completed in 1818, but the Scots eventually became sole owners. The building has changed much over the years including an extension at the west end, enclosures around the tower at the east end, and major changes to the style of windows. A timber building, the interior of St Andrew’s Kirk is dark stained; it has a barrel vault ceiling, balconies on the north and south sides and a choir loft at the west end.

In New Amsterdam, we have All Saints Church (1820) on Vryheid Street, originally used by both the Dutch and the English congregations. Not true to a specific architectural style, the building has the pointed arch windows of Gothic Architecture, and was designed to a set formula with a tower over the main entrance at the west and the altar at the eastern end of the building. By 1838 however, alternate sharing of the building ended (there were some difficulties, especially with the arrival of the Scots) and another church built for the Anglicans; hence we have All Saints’ Scots Church (1820) and All Saints’ Anglican Church (1838). The church has gone through some changes and additions over the years, as early as from 1840, some enveloping the original building. In 1877, the building was extended in length, the galleries were removed, a south aisle added, side porches erected, and a covered entrance for carriages was built at the west end. Further extensions were made in the 1890s, including a north aisle and the Lady Chapel. These latest additions would have given the building the typical basilica-form of early medieval churches, in wood, the pointed arches hinting at Gothic Revival architecture. Unfortunately, the concrete additions of the late 1950s, and later, have hurt the historic ambience of the building. Other churches of importance in New Amsterdam, are the Roman Catholic Church of the Ascension in New Amsterdam, with its dramatic example of stained glass windows; and the Mission Chapel (1841) the third building erected on that site for that faith. This timber building has a rather Roman look, with double-height fluted false columns, capped by a triangular pediment and having windows with rounded arches.

Elsewhere, there are numerous scattered examples of 19th century buildings, for example, the brick St Peter’s Church (1855) on Leguan Island. However, one historic building that moved away from the use of historic styles is the St James-the-Less Anglican Church in David Street, Kitty, Georgetown. Built in 1857, the designer’s attention to climatic requirements rather than adapting a historic style of architecture is an early example of Green Architecture in Guyana.

Our public buildings exhibit both Gothic Revival and Neo-Classical architecture, whilst commercial buildings possess architectural eclecticism and a specific style is difficult to determine. The City Hall (1889) designed by Fr Ignatius Scoles, probably our most distinguished 19th century architect, has been described as being reminiscent of the Gothic chateau in central Europe, but in timber, with its square tower, conical pinnacles and pyramidal spire. The tower


7 Norman Birnie, Re-dedication of St Andrew’s Kirk, St Andrew’s Manse, Georgetown, 1948.
rises to 4th floor complete with pinnacles at four corners and spire; whilst another attractive feature is the hammer-beam roof construction. The Public Buildings (also known as Parliament Building) on Brickdam in Georgetown (1829/1834) constructed at a time when the medieval tower was fully revived in England, was described by Early Scots, in 1885, as having the greatest architectural merit in Georgetown.10 The Public Buildings, designed by Joseph Hadfield, was completed in 1834: it has brick walls stuccoed (plastered) to resemble stone work and stands on a greenheart raft foundation.11 The original coffered ceiling (1875) in the Parliament Chamber designed by Cesar Castellani, was replaced in 2004. A public building which shows more appreciation of the climate is the High Court on the Avenue of the Republic, Georgetown, formerly known as the Victoria Law Courts. The design is credited to Baron Hora Siccama, the Colonial Engineer, but it is more likely by Italian-trained architect, Cesar Castellani, who was working in his office at the time. The architectural style of the building is a combination of the timber-framed buildings of the Elizabethan era in England on the top floor, and the masonry Neo-Classical ground floor. On July 23, 1894, the Guyana and Trinidad Mutual Fire Insurance Co Ltd (GTM) moved into their permanent purpose-built building at the corner of Robb and Hinduka Street. With many changes over the years, the still extant galleries on the east and north sides, are the most attractive features of the building. One commercial building which we can style as Art Deco of the early modern era, is the William Fogarty Store, Water Street, opened on October 23, 1950, following the destruction of the original building by the Great Fire of 1945. Numerous changes were made over the years. New Amsterdam has its share of interesting secular buildings of the 19th and early 20th centuries: State House, Masonic Hall, and the no longer existing New Amsterdam Hospital, being examples.

Georgetown's Traditional Colonial Houses

The traditional houses of 19th and early 20th century Georgetown are distinctive: the climate, the possibility of flooding and the abundance of timber would have set the pattern for our domestic buildings, resulting in elevated buildings, numerous window and verandahs, and timber architecture. The early buildings of the Dutch were of brick, but by the 19th century timber was the basic building material used by the British who came later. Of the many worthwhile examples in Georgetown, an important one is “Red House” on High Street, Kingston, that now houses the Cheddi Jagan Research Centre. The timber building features a tower over the entrance, balustraded verandas and Demerara windows, so typical of domestic houses of the period. A few other distinctive houses of this period are Castellani House, Vlissengen Road; Sharples House on Duke Street, Kingston; Walter Roth Museum of Anthropology, Main Street; Austin House, High Street; and the Prime Minister’s Residence, Main Street. A distinctive ‘style’ of domestic architecture emerged in British Guiana during the late 19th century through the creative skill of a slave woman’s son, John Bradshaw Sharples, fathered by a British architect, James Bradshaw Sharples, and who was born in 1845 in the colony. Sharples designed and built a number of houses in Georgetown, recognised by the iron-work stairs and balconies, steep gable roofs and curved doors. Two outstanding extant examples can be seen in Queenstown: one in Forshaw Street and the other in Anira & Oronoque Streets. Another fine example, still existing, is in Duke Street, Kingston. Other areas in Guyana appear to have their own “traditional” house. Berbice houses of this period, for example, have wide (sometimes very wide) overhangs supported by straight or curved timber brackets projecting from the truss between the windows or of the verandah. There are various forms of this pleasant feature.

A Fusion of Eastern and Colonial Architecture

Though Indian immigration to the then British Guiana started in 1838, it was not until after 1851 that the Indians established settled places of worship, though simple and temporary, following the basic tradition of their homeland as much as possible.12 Then, it was only in the last two decades of the 19th century that permanent and more durable structures of brick and block were built, the precursors to the local Eastern Architecture that we see today.

In the case of the Hindus, small shrivahals or shiv mandirs, more a shrine than a temple, were the first structures built, simply to house the sacred image or other emblem of the sacred deity, Lord Shiva.13 The basic architectural features of these structures are: small structure with single chamber, no space for a congregation; and dark interior. The shivahal at Versailles, West Bank Demerara, is one of four existing examples of this Eastern Architecture. Others are at: Mon Repos, East Coast Demerara (late 19th century) Port Mourant, East Coast Demerara (late 19th century) and Woodley Park, West Coast Berbice (renovated c. 1902). During the early 20th century, the Hindu temple became a larger structure housing a congregation, with the shrine dedicated to the deity in the centre (or close to the centre) of the building, over which was a tower (sikhara) rising above the roof of the building. The Hindu temple of the early 19th century exhibits architectural elements of colonial architecture of the period creating a distinct Indian Architecture in the country. Three important examples of this distinctive local Hindu temple are the Albouystown Mandir (1922) in Georgetown, the Fort Canje Mandir (1920s) in East Berbice, and the Providence Mandir (1932) East Bank Demerara. The Fort Canje Mandir has a particularly interesting history: it was at some time used by the three religions – Hindu, Islam and Christian – the Christian corner complete with altar and cross, is still in the building. The Providence Mandir, a single-storey timber building on low piers, is seen as a further development of local Hindu Architecture with its move to using the more Indian element of a central-plan octagonal form, but still making use of rich colonial timber detailing such as fretwork, turned columns and balustrading.

The development of the Islamic mosque, in turn, also appears to have gone through a period of reflecting the elements of colonial architecture, but to a lesser degree than the Hindu temple. The open-air mosque at Cumberland, Canje, Berbice, is more in keeping with the immigrants’ homeland tradition. The original structure, built of bricks in the late 19th century, was demolished in 1932 and re-built of blocks and concrete. In Georgetown there was the Queenstown Mosque, the oldest place of Islamic worship in the city, but demolished in 2006. Opened for worship in 1896, albeit incomplete, the original structure was made of timber and had three domes (gumbars). In the 1980s a roofed gallery was added in the colonial architecture style with balustraded handrails and turned timber columns (removed in the 1960s).

Conclusions

With its origins in colonialism, slavery and indentureship, the historic Architecture of Guyana displays creativity, artistry and environmental understanding (though the solutions have not always been successful in the last case) which have combined to produce unique adaptations of foreign styles in some cases and an eclectic but harmonious architectural development in other cases. Heritage matters and our architectural heritage is serious business; lets us see this patrimony as important and not commit cultural suicide, deliberately or accidentally.

12 Singh, Temples and Mosques, 21.
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Guyana Heritage Society, November 1983, mimeographed paper.


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Abstract
Our paradigm for sustainability must evolve around our perception of values, benefits, affordability, motivation, organisation, planning, monitoring and consensus. Sustainability is a relatively new concept, made more relevant by pressures on the world’s environment. Sustainable development applies to four domains, each of which apply to cultural assets and their preservation: ecology, economics, politics, and culture. Today we are challenged by environmental degradation, climate change, overconsumption and inequitable distribution, demographic change, demands for economic growth. Approaches to sustainable development today express the concept of social sustainability, in terms such as ‘well-being’, ‘good-life’ or even ‘happiness’, expressed as qualitative indicators, rather than purely quantitative ones. Sustainable development can be understood as a concern for heritage and its contribution to society (intrinsic), and also as the contribution that heritage can make to the environmental, social and economic dimensions of sustainable development (instrumental). Heritage must also adapt to survive and must not be put into aspic. Conservation planning and architecture balances the old and the new to achieve sustainability and public support.

This seminar manages to cover many aspects of the subject of preservation, some of which can overlap. So you will, I hope forgive me, if I restate material that applies to other speakers’ perspectives. We have many experts at this seminar who are looking at all parts of the preservation process; and our focus is thinking in the context of the Georgetown City Hall, and the historic environment of Georgetown itself. A note of warning: I use the word ‘conservation’ in the same context as many would use the word ‘preservation’.

1. Background to Sustainability
Sustainability is a deceptively simple word, and in its simplicity conceals the fact that it applies to almost every design and planning analysis that we make. Sustainability is also the product of intangible values, awareness and attitudes, administrative skills and broad support from both the people and from the law. It relates to all scales of challenge and task.

The UN General Assembly in 1987 realized after the failures of the Stockholm Conference of 1972, that there was increasing concern at the heavy deterioration of the human environment and the earth’s natural resources. The Brundtland Commission on 20 March 1987 effectively encapsulated the concept with the following simple definition that relates not only to the physical but also the intangible, political, social, and cultural environment:

"Sustainable development is that which meets the needs of the present without compromising the ability of future generations to meet their own needs."

Global awareness of the sensitive nature of our environment had been growing after the catastrophic destruction from two world wars and the realization that the world’s resource needed to be managed and negotiated. A succession of organizations were spawned from the end of the First World War onwards all concerned at how to manage and conserve, and how to develop their common interests:- The League of Nations (10 Jan 1920) failed by 1938 but had sown the idea of co-operation, The United Nations (1945), The Food and Agriculture Organization (16 October 1945), UNESCO (16 Nov 1945), ICOM, (1946), IUCN (1948), The WHO (1948), ICCROM (1959), The Venice Charter (1964), ICOMOS (1965).

For the first time in human history international concern that sustainability matters to all walks of life has been increasing. The world is beginning to understand the impacts that we have on our environment and on our biosphere. We are just beginning to realize today that many human activities can threaten the earth’s crust and deplete its minerals. We humans threaten the cleanliness of the oceans and survival of marine life. We contribute to the rise in temperature and the instability of the climate and the reduced quality of the atmosphere which is needed for life to survive. As a result of recent human expansion, animals and plant life are threatened with extinction. This has all happened over the last 500 years. The threat today from destructive human activity is increasing at an exponential rate. The facts are clear and unmistakable, such that if we wish to hand on a stable biosphere to our children and grandchildren, we have to sit up and take notice of these scientific facts.

Participation, Consultation and Consensus
All of us, who are connected with development and conservation, must see our work in the context of the wider social, cultural, physical and economic environment. We enhance the quality of our actions by promoting participation, consultation between all interested parties, and by building consensus on the best way forward. All of those international organizations, that I have noted, above recognize that the challenges of development, conservation and sustainability are too complex for any one country or sector of interest within a country to be autocratic and dictate
policy without building consensus. Sustainability of our biosphere requires our co-operation. Similarly at our smaller scale of concern in Guyana we have to see our ideas in the context of all our colleagues and clients and of those who are concerned at the outcomes of our work who we call "stakeholders." The world continues to change around us. We have to grow with the new inventions, vision and increasing knowledge of our age.

The internet is the most influential novelty of our age. These changes in the media, access to knowledge and challenges to harmonizing our activities bring many opportunities for sharing skills and developing competitive trade, but also much responsibility in our enlarged range of influence to work within ethical and social limits, and within the limits of resilience of ourselves, of our social and cultural systems, and of our environments.

"Resilience" is the limit of a human or physical system to absorb disturbance and still retain its basic structure and viability. It applies to all that we do.

The internet brings a revolution in knowledge. It allows access to information, awareness, education and opinion. New means of travel and the media have been among the most significant changes to our culture, allowing clearer cultural identity and comparisons through personal experience and the diverse opinions of languages, customs, religions, codes of behavior, and creativity in art and architecture. They challenge us to make sense of different practices, beliefs and political systems. We cannot do so without interpretation and presentation, education and awareness about the diverse facts of our lives. Sometimes the comparisons can be uncomfortable and we can be culturally defensive through our own limited knowledge. We can find security in the "status quo."

The historic environment, being so tangible, can interpret the past and indeed is one of the only tangible means of giving perspective to change over time. It can portray man's achievements and failures, in the context of environmental, social, political, cultural and economic influences.

2. Threats to Sustainability

At the macro scale, the financial sector illustrates the dangers from unregulated and badly managed actions. For example the uncontrolled trading of Nick Leeson a fraudulent trader who was sent to Singapore for Barings Bank, and who was not controlled by his management, brought down the Bank. Similarly Lehman Brothers Bank in 2008 collapsed spectacularly and severely damaged International banking systems and the prosperity and trade of many countries when, through not controlling risk, it was overexposed to the sub-prime mortgage crisis in the USA. Such uncontrolled trading was not sustainable.

Waste is polluting the oceans and endangering marine life. The biosphere with its plants and animal life is endangered by unsustainable invasiveness of mankind which does not plan exploitation in relation to the resilience of the natural environment.

Airborne pollution and impacts on climate change results from the excessive use of hydrocarbons which are seen as more important for human advancement than developing clean and renewable energy before damaging the atmosphere.

Our productivity and distribution does not meet the requirements of equitable supply and demand, such that biological systems are over exploited. Population growth presents its own problems of skills development. It strains equitable trade, supply and demand. Its unethical management leads to poverty and unrest – a real political risk for the future.

Change to our social and cultural environments can damage social structures and cultural harmony in our thoughtless planning, which is, very often, not for humans but for more tangible roads and services infrastructure, for more profitable returns on investment and higher density of development. While humans are extraordinarily adaptable, social and family life is much more sensitive to change than we recognise.

Amidst all these threats to the environment and its resources, we have often failed to protect customs and culture. In the geopolitical context, we see that humans still fight for narrow ideas, and for expanding power through aggressive acquisition. In the world of commerce, growth and domination are still seen as the means of survival. With competition being a priority for commercial sustainability, we can fail to support broader economic, social and cultural considerations. We need to respect and protect the cultural environment and to value humanity’s development.

You might consider that the above discussion on the context for sustainability has nothing to do with our concerns for sustainability at this Seminar on Sustainability of the Cultural Environment. But I want to show you that whether conservation applies to the tangible world of cultural character and identity, or to the macro or micro environments of our world, we can only decide to change or conserve equitably if there is an accepted set of rules. Since the cultural environment is a public asset (whether recognized or not) a conservation project may need to be overseen by the wider context and superior authority; conservation might need to be given legal definition and support, and, through negotiation and reconciliation, bring balance between the different environmental conditions and competing stakeholder interests.

I would add the principle that “we cannot justify our policies for sustainability at the large scale if we cannot get our policies right at the small and intimate scale first.” That means us!

3. Developing Sustainability

Developing sustainability of our cultural environment involves consideration of all the factors that can threaten an equitable outcome. Such threats are different at different scales of the environment. They can only be countered if we are adequately informed and able to evaluate the consequences of any option for the future. With sustainability there is no “do nothing scenario.” So with sensitive historic environments we have to consider sustainability in all that we do, in order to economise, manage, and appropriately use the resource and not abuse the limits of resilience.

As recognized by UNESCO’s World Heritage Convention 1972. and the Operational Guidelines (current version being from 2013) historic planning and construction and natural environments must retain their cultural values in defining acceptable conservation and reuse. The managers of lesser cultural environments still need to respect their intrinsic values in defining the degree of change and upgrading required to ensure sustainability.

They may need to adapt enough to be viable and to satisfy modern user requirements without losing their cultural values.

Equally, planning for the intangible social and cultural environment is the purpose for which the whole physical world has been adapted. It is for people and their activities that we plan and design. It is people's values which have coloured our understanding of the present and which form the base upon which we build the future. To control this diversity of cultural environment the world often relies on autocratic, uneducated governance, using fear, power, defense of the
status quo, and unethical policies to support our sectoral interests, etc. But all people and their energies lie at the heart of our work - or should do!

We are living in an interconnected environment for which we have to take responsibility if we are to achieve sustainability; and this involves, our education and awareness of the scientific nature of our physical environment, of social structures and cultural identities, histories and achievements; our ability to take into account human values, rights and equal opportunities, the nature of the economy and how to achieve efficiency; the alleviation of poverty, and how we might achieve trading equilibrium in the context of the national and international dimensions of the law and commercial practice.

So we can see that sustainability is a relatively new concept, made more relevant by pressures on the world’s diverse environments. It applies at all scales of the environment down to the scale of our immediate neighborhoods, our lifestyles and behavior patterns. These facts apply to us all.

The above diagram (Figure 1.) was devised for IUCN in 2006 by W.M. Adams, and although intended for the natural world applies in great measure to the sustainability of the cultural environment. It shows that the concept of sustainability applies to all the four pillars of human concern:- Social (which includes Cultural and Political), Environmental and Economic; and that in order to develop appropriate plans and policies that are sustainable, they must all be taken into account in our response to everyday conservation challenges.

These four pillars apply at all scales of the environment, and can be explained as follows.

4. Ecology and the Environment
The factors involved are the resilience and carrying capacity of our environment (biosphere), its separate systems and their viability. Ecology encapsulates the sustainable uses of energy; the sustainable supply of goods, man-power and the service industries, their outputs and impacts on the social, economic and cultural environment. Today we are challenged by environmental degradation, climate change, overconsumption and inequitable distribution, the control of waste, demographic change, and demands for economic growth, all of which threaten ecological sustainability.

Environmental sustainability in conservation includes scientific considerations for the use and compatibility of materials, their decay mechanisms, the upgrading of design, planning for sustainable use and its impacts and management systems.

5. Economics
There are many interpretations of the meaning of sustainable economic policy following the Brundtland definition. But in our economic case we are concerned with the sustainable use of material and financial resources, and the adequate return on investment in the conservation process. In many regions consumption levels are unsustainable; the poor are disadvantaged and lack opportunity; services for the poor and equitable wealth distribution are not available. We have seen how an economy can reach its limit of resilience and may be conditioned by the way it treats its natural and human resource.

I believe that there is a great resource of human energy which, when tapped for a common cause like conservation of an environment or monument, can enhance sustainability and produce social, cultural and economic benefits. We see this in the beneficial impacts of the National Trust of the UK which uses volunteers effectively.

Economic benefit results from the promotion of trade, employment and cultural identity, often associated with local craft industries. There is in most places a market for cultural understanding through interpretation and presentation of cultural assets. This promotes tourism for visitors, additional employment for residents, and cultural identities for the community. Education is a key management strategy for enhancing economic opportunity.

Sustainable policies and practice are the outcome of international and national law, economic and urban planning, education, good management, respect for cultural behavior and lifestyles, and ethical consumerism.

6. Politics
Politics is a proactive process where we give conservation and planning policies their context and definition. The political system gives administrative authority, and defines laws and regulations. It should support planning policies and build understanding, consensus and legitimacy through developing public support. It should oversee the development of standards and design guidance, and define who is in authority. It sets out sanctions for non-compliance with the law, and oversees environmental management. Politics involves the art and ethics of initiating change and taking decisions.

Sustainable politics is fair, and motivates support for the intended outcomes. Under the exposure of modern communications, sustainable politics and planning should be accountable and transparent in its decision making. It should achieve good governance to operate sustainably, developing participation, consultation, consensus and equity in negotiating between different vested and cultural interests. I see democracy as an attempt to ensure fairness through the equity achieved in the ballot box. But sustainable politics succeeds only if vested interests are prepared to accept compromise, to accept differences and to respect the same ethical rules. This is not an easy task, but it is essential for confidence in managing our human diversity and supporting investment into art, culture and the creative industries.

7. Social and Cultural Sustainability
For a moment I would like to look at social and cultural sustainability further as it has special relevance to our understanding of both tangible and intangible culture. It lies at the heart of all our work in the creative industries. The Guyana National Trust, the International National Trusts Organization, ICOMOS, IUCN, ICCROM, UNESCO and other bodies of the UN are...
concerned with the preservation of culture and all the ways we identify with it. Culture is a form of human expression and is man’s response to circumstance and is built on awareness, and has philosophical rights to exist and to be accepted.

**Social sustainability** is the least defined and least understood of the different ways of approaching sustainability and sustainable development. It has received much less attention in public debate than economic and environmental sustainability.

Approaches to sustainable development today may need to express the concept of social sustainability, in terms such as ‘well-being’, ‘good-life’, or even ‘happiness’, expressed as qualitative indicators, rather than purely quantitative ones.

The concept of ‘social sustainability’ includes many considerations: social equity, livability, health and safety, community development, social capital, social support, human rights, social justice, labour rights, the creation of place, social responsibility, cultural expression, cultural capital, community resilience, and human adaptation. In these terms, social sustainability encompasses all human qualities of life.

Social Sustainability is defined by the Oxford Institute for Social Development as being, “Concerned with how individuals, communities and societies live with each other and set out to promote connectedness within and outside the community at the formal, informal and institutional level,”

Nobel Laureate Amartya Sen gives the following community-based factors that may define the achievement of social sustainability:

- **Equity**, where the community provides equitable opportunities and outcomes for all its members, particularly the poorest and most vulnerable members of the community.
- **Diversity**, where the community promotes and encourages diversity.
- **Interconnectedness/Social cohesion**, where the community provides processes that promote connectedness within and outside the community at the formal, informal and institutional level.
- **Quality of life**, where the community ensures that basic needs are met and fosters a good quality of life for all members at the individual, group and community level (e.g. health, housing, education, employment, safety).
- **Democracy and governance**, where the community provides democratic processes and open and accountable governance structures.
- **Maturity**, where the individual accepts the responsibility of consistent growth and improvement through broader social and physical attributes (e.g. communication styles, behavioral patterns, indirect education and philosophical explorations).

At a more operational level, social sustainability results from actions such as capacity building and skills development, and environmental and spatial adaptation. Social sustainability includes custom and social policies to deal with equity and health issues. It requires the reaching of consensus through consultation and participation. It responds to the needs of the community, and has a political and ethical structure for authority.

**8. Planning and Design for Sustainability**

Sustainable planning and development of urban cultural areas is the product of balancing stakeholders’ interests. While respecting social and cultural sensitivities, it requires an equitable compromise between competing interests in infrastructure and land use. There has to be an agreed overview to guide development at each stage. Historic and cultural environments especially require critical decisions about design and planning, construction and conservation principles and technologies, and, perhaps most importantly, their effective and affordable management and maintenance.

The cultural environment, the built heritage and conservation areas are often, but sometimes not adequately, protected by law. At all scales of the environment, the process for developing detailed plans and policy is similar in principle: for single cultural sites, for planning citywide engineering and land use, for economic planning and for legally supported national plans and policies. Once the qualities of the cultural environment are designated, high level support is required from the government and national level agencies to preserve the site and its context, the appropriate land use and scale of the cultural environment. Managing the compromise, required to integrate public infrastructure and land use with the historic environments, requires wide agreement, where those four economic, cultural, ecological and political pillars can achieve sustainability.

As in other developed countries, there are opportunities to involve national and local agencies who can support the Government and the Guyana National Trust.

- Universities and research institutes can assist by researching related subjects: cultural and social history, cultural expression and construction techniques, construction detailing and contract execution and supervision, planning, economic and financial mechanisms, project and national policy management, craft development, interpretation and presentation of historic sites, and education.
- There is much energy in the public whose interest in their own history can assist presentation, funding and management of the cultural environments.
- The professions and their supporting institutes can build standards of construction and design, codes of practice, and technical papers on materials that are special to Guyana. Design guidance can be given on the incorporation of modern services and construction upgrading without loss of cultural and historic values.
- The educational system can promote awareness of Guyana and Georgetown’s unique environment.
- **Participatory approaches** to management reinforce heritage as a shared property of the community, and promote local commitment, which in turn develops sustainability.

Sustainability of the cultural environment is the result of public support for public assets. So the political and practical mechanisms for achieving that support are vital. In turn, that support enhances civic pride and identity, promotes skills and awareness of historic and cultural values, and gives opportunity for national and international tourism and trade.

We must remember that the intangible social and creative culture is quite as important as the tangible physical environment. It is appropriate to note that intangible values are the reasons why we conserve the tangible record of the past. In order to understand values it is worth looking at the examples of Outstanding Universal Value published by ICOMOS in 2008 and compiled by Jukka Jokilehto and others. While our heritage may not be of World Heritage status the principles for establishing a typology of values is useful.

All this has to be affordable and within the terms of sustainable business plans. The Heritage Lottery Fund (HLF) of the United Kingdom is typical of public agencies with the responsibility of managing the cultural environment. In spending the public’s money, the HLF insists on
management and business plans for any of its investments. On the one hand, this is a sensible protection of the HLF’s public reputation, but also it puts pure conservation objectives into a viable perspective. As a result of prove viability, much cultural development has been successfully funded.

But we should recognize that sustainability has quantifiable limits. We must decide on the most equitable balance of different factors and ask the following questions:

1. What is the limit of resilience, of materials and their management and maintenance, seen in their context? What is the limit of a system to absorb disturbance and still retain its basic tangible or intangible structure viability?

These are important concepts in evaluating proposals to adapt our cultural environment. On the other hand, some cultural environments such as archaeological sites or museum objects cannot be changed and often their messages take much research and a long time to unravel. Failings in management and maintenance can be illustrated by the following examples from highly different regions of the world.

The World Heritage City of Shibam in Yemen, dating from 16th Century suffered severe damage through lack of maintenance and the collapse of important buildings. Constructed of mud and up to 8 stories high, the regular management of its mud brick construction and the mud slurry and lime based paint waterproofing and drainage systems is essential to its survival. The overloading of the traditional sanitary systems by the introduction of modern water supply combined with inadequate drainage has contributed to the decay of the City. Plumbing trades are weak in the desert world and water leaks spell disaster for mud buildings. The lack of management resulted from a lack of national oversight and regulation, and from the Town of Shibam’s weak control and guidance to its people.

The Georgetown City Hall lacks maintenance and suffers severe but repairable damage or structures and finishes. The electrical systems are in damp condition and risk damage by fire. The bad construction of services requires complete upgrading. Yet the building has great potential for reuse as a multi purpose space supported by offices. Good management could retain its historic values and a wide range of contemporary use. The problems look worse than they are, but time is limited for corrective action. Is there the will to carry out the essential works and to manage the building?

2. Do we plan within the limits of resilience to achieve economic sustainability, which, as we have seen above requires consumption to be limited by the capacity to supply? This applies as much to financial management and support from markets and services, as to resource management which must develop practical limits of consumption.

3. Have we the participation by users and the audience, and have we the materials, and the skills needed for the investment to be viable?

4. If we cannot define the outcomes of a project, should we start the project or just hold the asset until we can demonstrate sustainability?

Georgetown and Guyana have many amazing historic buildings set into a planned urban morphology (structure) that need to be retained as part of the national character of the country. The Town Hall is one of many set into a historic urban context, whose scale and functions need to preserve its original aesthetic.

The Guyana National Trust sets out an admirable plan to promote conservation, to sensitize the public to the values of the heritage and actions to be taken to conserve the cultural environment. It expresses a clear mission, vision, values and programme. It must be supported by the Nation’s stakeholders. In some ways the future reputation of Guyana depends upon taking the appropriate actions – and especially with regard to the City Hall.

9. Upgrading and Reuse

In designing to upgrade and reuse the cultural environment, alongside the many disciplines of architecture and associated professions and management, sustainability requires that the many specialists should act as a team. There will be social and human considerations that should colour the approach to design. I suggest that all upgrading and design should be judged on the degree to which it satisfies sustainable construction and management, and functional, human and social requirements.

The context of the heritage, the roads and services infrastructure, the access for vehicles and for the pedestrian, the landscape and planting, must all contribute to the City’s urban qualities, and ensure that the intended relationship of landscape and setting complement the buildings and scale of the human environment. This is an emotional and aesthetic task. The City's reputation as a destination for business and tourism depends upon good planning decisions today.

While it is very important that architecture is of the age in which it is built, it can be modern but must be in context respecting the original form when in an historic setting. Sustainable use requires us to evaluate present condition, and to:

- Maximize efficiency of structural performance, possibly strengthening underperforming components and setting the loading limits for future users. Where degradation has taken place through a lack of maintenance or physical damage and decay, calculation of the safe structural loadings is most important to ensure that building use is within recognized limits of health and safety. The addition of concealed gaskets, and by ensuring the integrity of the painted surfaces.
- Enhance the performance of the external envelope, the drainage and the protection against water infiltration, with drips, modern sealants, and flashings, window performance and the addition of concealed gaskets, and by ensuring the integrity of the painted surfaces.
- Add sound insulation which may be essential for performance especially in an urban setting, and for control of reverberation time to suit speech or music.
- Add thermal and ventilation control which may be in conflict with the sound insulation, the structure and finishes. Like lighting this modern adaptation may have to be designed into the historic setting as a new element required for sustainable use.
- Add lighting and the economic use of energy which may require additional reflective surfaces added to otherwise dark wooden environments. Lighting need to be indirect rather than direct, requiring the addition of lightweight reflective materials.
- Power distribution must suit a variety of functions, and as with all modern architecture must be adaptable and to a certain degree indeterminate.
- Health and safety may require compartmentation and enclosure and the protection of means of escape. Alternative means of escape may be needed to suit evacuation times and their compatibility with the historic setting. It requires expert engineering of all services systems and serious maintenance if damage is to be avoided.
- Detailed design must take up the dilapidations and distortions of age to ensure sustainable performance.
Cultural and historic environments are required to achieve viability while retaining cultural and historic values and this requires exceptionally good management and teamwork. The following works may illustrate the diverse nature of issues to be dealt with to achieve sustainable conservation, where similar challenges apply to achieve sustainable conservation in Guyana for its wonderful heritage:

- **The Banqueting House (1620)** in Whitehall by Inigo Jones, the first major renaissance building with superimposed orders in the UK, with ceilings painted by Rubens, is a valuable multipurpose hall for receptions, concerts, and lectures. In 1972 when I converted it from and ecclesiastical use, the wooden scrolls had rotted and suffered insect attack, the balcony sagged, the water from the roof caused dry rot, the finishes were decayed, the noise from Whitehall’s traffic and the long reverberation times made the space unusable for today’s world. Original design and structure was restored, sound insulation was added to recesses and window jams, and double glazing was added to the sash windows. New uses serve government, industry and Tourism and are supported by ancillary spaces and services.

- **Li-Jiang Yunnan China** was severely damaged by earthquake in 1996. Urban services roads and buildings needed reconstruction and materials conservation. The lifetimes of minorities needed protection as an essential quality of the City. The city dates from around 1150AD, is very authentic, and required traditional construction and upgrading of finishes. In order to pay for sustainable management and maintenance, tourism was encouraged, but after 6 years by 2005 this threatened to spoil the city through its popularity as a destination. However the intensity of tourism that was demanded the systematic recording of endemic constructional failures of buildings and their causes, as with all historic areas, traditional conservation of wooden structures also required renewal and upgrading in order to incorporate the modern world, as in other cultures. Sustainable management required looking at all cultural, social, economic, values and management issues. The Chinese administration was efficient.

- **Shenyang Imperial Palace in Liaoning Province China (1630 AD)** was surrounded with inappropriate buildings – a supermarket and the City Centre over shadowed by a sky scraper that had no place near this World Heritage Site. Planning controls and policy had been lacking. Development for tourism, interpretation, presentation, and plans for reuse were lacking. Maintenance was not carried out properly. There was a weak conservation plan. Our work was to structure a conservation and upgrading plan, assist in presentation of the site, policies for management and tourism promotion, and to build on the increasing awareness of the Chinese of their past to build their future.

- **The Walled City of Lahore** monuments date from the time of Aurangzeb and Shah Jahan Khan and later the British Occupation. It is a city of fine historic buildings, of which the Mughal Barbs constructed around 1630 was unused and dilapidating. Its interior was lime washed until our surveys showed the underlying frescoes. Conservation required us to ensure authenticity and to restore only where evidence demonstrated the original colours and designs. Careful conservation restored the original frescoes and allowed the new use as reception and marriage halls. Sustainable conservation planning in Lahore required mapping the endemic constructional failures of buildings and their causes, understanding the demographic trends and densities of occupation, registering the functional patterns of trade and residential areas, recording the changes in time and the impacts of history, especially the structural impacts and dangers of unauthorized upward extensions, assessing the historic values of buildings and street patterns and the changes that have taken place, noting the chaos of urban services infrastructure, especially overhead telephone systems, overhead powerlines and transformers, and areas of commercial encroachments that reduced the public realm (see the photo of such encroachments beside Wazir Khan’s mosque). These planning and construction challenges needed resolution. Planning and development policies needed to be written and agreed with the Lahore Development Authority if the Walled City was to be a desirable place for the residents and their businesses.

- **The Leshan Grand Buddha built between 715-810AD** is the largest Buddha carved from the natural rock at 71m high, and stands above the Ming and Dadu rivers in Sichuan Province China. It is part of a 25km2 World Heritage Site. Its conservation challenges are: to understand the flow of ground water that saturates the back of the Buddha and to reduce frost damage through the construction of drainage galleries; to conserve the exposed surfaces of the Buddha; to improve access in response to the increasing demand from Buddhism and tourists. The project involved the reversible construction of a wider platform at the Buddha’s feet, the construction of a reversible walkway running 450m along the cliffs above the river from the areas of public access. Along with the Buddha are numerous other historic buildings associated with historic events and people; an ancient library and pavilions, housing, a large pagoda, and an infrastructure of paths, and rock tombs which themselves are World Heritage Sites. Sustainable conservation required capacity building of both project management staff and the supporting professional teams. Conservation involved developing policies and planning, technology and design for conservation, reversibility, health and safety, and the outstanding universal values of the site. The project formed part of a larger World Bank project to assist Sichuan Province’s infrastructure and to enhance its museums and tourist sites.

10. Conclusion
Sustainable development includes a concern for the cultural environment, and its contribution to social identity and custom. The historic and cultural environment contributes to the social and economic dimensions of sustainable development, but to survive the cultural environment must adapt and must not be put into aspic. We must recognise however that this principle has its limits if design is to be authentic, and if integrity is to be maintained.

We can all see that if we deal with part of the problem we can only get part of the answer and our works will not be sustainable. Project preparation and management has to consider all factors and the understanding of management and political leadership is the key to sustainability.

Today we live in an exciting world of progress in development systems and management. We can be supported by new scientific understanding, by enhanced educational potential, by political openness and transparency, by greater awareness, by our own experience through travel and exploration, by modern communications and amazing databases to inform us, and by improving financial systems. We therefore have the means of achieving sustainability in all that we do to accommodate today’s rich diversity.

It requires commitment from us all.
Heritage conservation and management are essential for ensuring the survival of a nation’s heritage resources for posterity. However, heritage preservation is often not viewed with enough enthusiasm and not given much attention by Governments, politicians, relevant agencies and the general public. In order to preserve a heritage site and ensure its long term survival, grave justifications are usually required since it is the common view among the populace today that ‘replacing the old with the new’ is often the better way forward in terms of ‘development’ and enhancement of a country and city; therefore perpetuating the view of heritage preservation as a hindrance to modernization.

An understanding of heritage is essential at this point to highlight the need for its preservation. If one were to examine what constitutes ‘heritage’ they would find many meanings including that it is often a reflection of a country’s inheritance and therefore it’s past. It is a point of reference of where we come from or where a particular era originated. It serves as the foundation of many societies, and of course no heritage is without a mixture of cultures. According to David Lowenthal, “Essential for social identity and collective purpose, heritage enriches us through remembered precursors and positive heirs.” A more widely accepted definition of heritage is “a social ensemble of many different complex and interdependent manifestations, reflecting the culture of a human community. For the purpose of this paper this definition will be used as the basis for heritage.

Guyana’s heritage is no different as we have diversity and value worthy of survival. Our history has shown that the early colonizers made use of local building materials on hand – timber and thatch as these were easily available from local forests, and which evolved gradually into several building styles. Our unique blend of cultures has bequeathed a signature craftsmanship evident in a domestic architecture that is overwhelmingly wooden and elaborate and which remains the cornerstone of the historic character of our city, towns and far-flung villages. This architecture is defined principally by the old buildings along with impressive seawalls, elaborate (iron) bridges, commemorative arches, bandstands, public gardens, historic forts, pre-Columbian sites and monumental sculptures all comprising a rich and wonderfully varied heritage of which many examples have survived as landmarks of our national identity.

However, heritage preservation of these remarkable places is rapidly becoming a ‘thing’ of the past as the demand for increased space, modernization and ‘out with the old’ mentality often resulting in demolition and loss of our built legacy and character. This changing landscape with adhoc, poorly designed and uncharacteristic buildings puts pressure on the environment with huge demolition wastes and energy costs, loss of cultural identity and place values, are some of the glaring negative factors we can avoid if we recycle our historic properties. As such this paper focuses on the notion of adaptive reuse, which is not a new concept as there are a few successful examples in Guyana including hotels, cafes, offices, cultural spaces, as a continued viable method of sustainably preserving our nation’s heritage. Research has shown that sometimes adaptive reuse is the only way that the heritage fabric will be properly cared for, revealed or interpreted, while ensuring continued use of the building itself.

Adaptive Reuse for Sustainable Heritage Preservation: the Case of Monuments in Guyana

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Abstract

Guyana’s heritage as with many other nations is worthy of preservation. Our history has shown that the early colonizers made use of local building materials on hand – timber and thatch as these were easily available from local forests, and which evolved gradually into several building styles. Our unique blend of cultures has bequeathed a signature craftsmanship evident in a domestic architecture that is overwhelmingly wooden and elaborate and which remains the cornerstone of the historic character of our city, towns and far-flung villages. This architecture is defined principally by the old buildings along with impressive seawalls, elaborate (iron) bridges, commemorative arches, bandstands, public gardens, historic forts, pre-Columbian sites and monumental sculptures all comprising a rich and wonderfully varied heritage of which many examples have survived as landmarks of our national identity.

However, heritage preservation of these remarkable places is rapidly becoming a ‘thing’ of the past as the demand for increased space, modernization and ‘out with the old’ mentality often resulting in demolition and loss of our built legacy and character. This changing landscape with adhoc, poorly designed and uncharacteristic buildings puts pressure on the environment with huge demolition wastes and energy costs, loss of cultural identity and place values, are some of the glaring negative factors we can avoid if we recycle our historic properties. As such this paper focuses on the notion of adaptive reuse, which is not a new concept as there are a few successful examples in Guyana including hotels, cafes, offices, cultural spaces, as a continued viable method of sustainably preserving our nation’s heritage. Research has shown that sometimes adaptive reuse is the only way that the heritage fabric will be properly cared for, revealed or interpreted, while ensuring continued use of the building itself.

Guyana’s heritage is no different as we have diversity and value worthy of survival. Our history has shown that the early colonizers made use of local building materials on hand – timber and thatch as these were easily available from local forests, and which evolved gradually into several building styles. Our unique blend of cultures has bequeathed a signature craftsmanship evident in a domestic architecture that is overwhelmingly wooden and elaborate and which remains the cornerstone of the historic character of our city, towns and far-flung villages. This architecture is defined principally by the old buildings along with impressive seawalls, elaborate (iron) bridges, commemorative arches, bandstands, public gardens, historic forts, pre-Columbian sites and monumental sculptures all comprising a rich and wonderfully varied heritage of which many examples have survived as landmarks of our national identity.

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This brings us to the meaning of monuments or broadly heritage resources which are significant because of the various values attached to them. A definition of a heritage or cultural resource as stated by Canadian Parks Canada Agency in its Cultural Resource Management Policy is “a human work or a place that gives evidence, in form or has spiritual or cultural meaning and that has been determined to be of historic value.” The term monument comes to the fore similarly according to the National Trust Act of 1972 Section 2 “to include any building, structure, object or other work of man or of nature whether above or below the surface of the land or the floor of the sea within the territorial waters of Guyana and any site, cave or excavation” deemed worthy of the consideration despite of their designation as national [preserved for historic, architectural or archaeological interest or national importance] or not.” The Standards and Guidelines for the Conservation of Historic Places in Canada present this definition by stating that “a historic place is ‘a structure, building, group of buildings, district, landscape, archaeological site or other which has been recognized for its heritage value.’” These definitions encapsulate therefore our many historic structures which unfortunately we are rapidly losing due to new constructions, demolition, neglect, poor maintenance, high maintenance costs and a general need for new development and change. It is against this background that this paper will be premised particularly the notions of adaptive reuse and sustainable tourism as means of aiding heritage preservation for long term survival.

It must be noted that the value of monuments derives from an association with an aspect or aspects of human history.” Heritage value as defined by the Standards and Guidelines for the Conservation of Historic Places in Canada, is “the aesthetic, historic, scientific, cultural, social or spiritual importance or significance for past, present and future generations. The heritage value of a historic place is therefore embedded in its character defining materials, forms, location, spatial configurations, uses and cultural associations or meanings.”

The capital city of Georgetown with its “unique urban plan based on the eighteenth century Dutch plantation layout and its nineteenth century British architecture is indeed attractive in its physical appearance. The building forms having evolved as direct responses to the different geographical and socio-economic realities of the land and society to which it is inextricably bound.” However, as posited by Lennox Hernandez, “although many developing countries possess their own kind of rich architectural culture, relatively little is done to preserve it.” He further states that, “there are various reasons for this lack; for example, some do not see their historic architecture as worthwhile, when compared to that of other countries; others may prefer to see modern structures in their cities; in others, the governments may not have the economic means to indulge in heavy expenditure on conservation…” This point was emphasized by Fram who posited that “the conservation of buildings and communities has often seemed at war with change, with ‘progress.’ A balance of old and new, of repair and development, must be achieved.” He continued that conservation depends on the future. The importance of the past depends on resources to maintain it into the future.”

The basic concept of conserving a building is to protect the built and cultural heritage. This can significantly maintain social capital and generate economic resources as well as can strengthen the sense of living place and sense of belongings. According to Bernard Feilden, “the conservation of historic buildings demands a wise management of resources, a judiciousness and aesthetic sensitivity and a clear sense of proportion. Above all it demands the desire and dedication to ensure that our cultural heritage is preserved.” He further stated that “modern long-term conservation policy must concentrate on fighting the agents of deterioration.”

The alternative of adaptive reuse comes to the fore as a means of addressing this challenge but certainly it is not an end in itself as we are aware of the many challenges and hindrances to the heritage preservation field, including the common weakness of inadequate financial resources. Heritage preservation refers to the protection of heritage from damages as heritage is non-renewable in nature. In more contextual form sustainable heritage conservation is defined as “an approach to conservation that preserves the best of the heritage but does so without imposing insupportable costs and which affects a rational balance between conservation and change.” Hence the need to increase advocacy for reuse of our historic structures and monuments as a means of ensuring sustainable heritage preservation for posterity is exhibited. As noted by Lennox Hernandez, “a historic building is usually seen as a symbol of a community’s identity and continuity – a part of its heritage.” He states that, “conservation of historic buildings can be seen as a means to continuing the useful life of important elements of our culture since the buildings exhibit a number of important values such as aesthetic, historic, economic, social, spiritual and even political.”

Efforts must be made to convince the populace that “the remaining old [wooden buildings] and ensembles in the nation should be preserved and could be regarded as potential sources of economic wealth.” It is imperative that the city’s heritage is preserved and as posited by Heritage Canada Foundation, “if we choose not to conserve important parts of our historic environment, we will make it harder for future generations to understand and appreciate their past, and we will impoverish their quality of life.” Hence “it is of paramount importance that heritage managers have heritage plans, since they are managing the sites for future generations.”

Inadequate financial resources are one of the most challenging aspects in terms of preserving a nation’s heritage. Often listed among the main reasons for inadequately protecting and safeguarding heritage resources is the significant lack of funds to undertake proper measures required to conserve and preserve heritage sites. Hernandez alluded to this point in his research ‘Conservation for Cultural Survival,’ that, “conservation is essentially a cultural decision but the real world of economics is also an important consideration even though culture and economy do not necessarily share common aspirations.” He further conveyed that despite the failing economies, Guyana and other developing countries have to regard historic preservation on a national scale, seeing it as culturally necessary even if it is not economically viable.” With

7 National Trust of Guyana, www.nationaltrust.gov.gy
12 Feilden, Conservation.
14 Hernandez, Cultural Heritage.
17 Hernandez, Conservation for Cultural Survival, 11.
Heritage Sustainability


Due to the realities and need for survival there has been significant changes in layout and landscape over the years. Many alterations, demolition and reconstructions have taken place over the past years owing to urban development without much regard for maintaining the building codes, order or the historic environment. Even though there remain classic examples of colonial architecture with coherence in styles and layout, within these areas there are visible evidence of loss of heritage sites due to the open spaces left as a result of buildings destroyed by fires and demolition due to neglect and lack of maintenance and new constructions in concrete many not in conformity with the historic environment and layout. Nevertheless, this should not indicate that there is nothing left to preserve but in order for the remainder to be kept for future benefit, there needs to be a serious and deliberate effort to do so. This effort can include devising and enforcing strict conservation and management policies, fostering a greater sense of appreciation and public education among citizens for heritage and providing incentives for encouraging such practices. However, the road ahead is a long and challenging one as was pointed out by Ian Cooper that “historic towns and cities can make an important contribution to the social and economic wellbeing of their regions,” it is sometimes difficult to convince cities and stakeholders to invest in heritage led regeneration due to a lack of evidence on the benefits, as well as a lack of guidance on how it can be achieved.

To this end the National Trust of Guyana has contributed to aiding heritage preservation in its most recent policy guideline designed for use by home owners and developers within the conservation zones of Georgetown as identified by the Central Housing and Planning Authority in the Greater Georgetown Development Plan as those areas contain significant percentage of historic structures which exemplify the nation’s built heritage through the various monuments and designs.

The notion of adaptive reuse introduced earlier will now be examined as a viable case of sustainably preserving our nation’s monuments. It is “a process by which older and/or historic buildings are developed for their cultural value while receiving economically, socially, culturally viable new uses of a sustainable nature” and should be considered as a viable option which can aid the long term survival of our many historic treasures in a sustainable manner. Sustainable development as defined by the World Commission on Environment and Development (the Brundtland Commission) report Our Common Future (Oxford: Oxford University Press, 1987) is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Hence the process of adaptive reuse being one that involves the recycling of an older structure often for a new function is certainly a measure of sustainable development.

Extensive restoration or rehabilitation of both the interior and exteriors is usually involved in this process which ensures the retention of most of the historic features. For example an old factory may become an apartment building. A rundown church may find new life as a restaurant and vice versa with a restaurant becoming a church. The Tate Modern in London is an example of adaptive reuse at the urban scale - converting an old power plant along the River Thames into a Gallery of Modern Art. Simply put this refers to giving new life or purpose to the old historic structures and reusing them in a manner befitting their original purpose if possible or purpose that aids the preservation of the heritage fabric and integrity of the structure.

Hence when the original use of a structure changes or is no longer required developers have the opportunity to change the primary function of the structure, while retaining some of the existing architectural details that make the building unique. In some instances for unused schools or Post Office buildings have been adapted for reuse as retail stores or offices. Therefore protecting the historical buildings that carry the cultural and historical values of a period and making a contribution to its reuse for the future of all humanities has great significance. Renovation, re-functioning or conversion of traditional buildings in the open spaces left as a result of buildings destroyed by fires for contemporary uses is a tool for carrying the traditional environments physically and socially into future generations.

The most successful built heritage adaptive reuse projects are those that best respect and retain the building’s heritage significance for the future. Sometimes, adaptive reuse is the only way that the building’s fabric will be properly cared for, revealed or interpreted, while making better use of the building itself. Where a building can no longer function with its original use, a new use through adaptation may be the only way to preserve its heritage significance. As such policies must be devised to promote this option in an effective manner to help ensure that any adaptive reuse project has minimal impact on a building’s heritage values and to discourage “façadism” that is, gutting the building and retaining its façade; to ensure that new work are recognizable as contemporary, rather than a poor imitation of the original historic style of the building and to encourage as far as possible a new use for the building that is compatible with its original use.

Adaptive reuse is not new to Guyana and the heritage sector as there are exemplary cases within the city where it has been practiced. Some notable examples of buildings in Georgetown which have been put to functional and appropriate use such as offices include the Inter-American Development Bank in High Street, the Demerara Mutual Life Insurance office in Avenue of the Republic, research centres – the Cheddi Jagan Research Centre in High Street, cafés – the Oasis cafe in Carmichael Street, restaurants and hotels – Cara Lodge in Quamina Street, Duke Lodge

23 Muhaddis Fault, “Restoration of the Great Inn for Touristic Purpose in the Walled City of Nicosia, Northern Cyprus” (2010).
Housing and Planning Authority in the Greater Georgetown Development Plan as those areas contain significant percentage of historic structures which exemplify the nation’s built heritage through the various monuments and designs.
The debate surrounding the reuse of these structures however, is usually five-pointed, dealing with aesthetics, the possible uses for the site, the type of materials or methods to be used, skills available, and the cost of renovation and maintenance. The dilemma of the architects is how to effectively adapt traditional style to modern uses and demands. Valuable lessons have been learnt from early years of constructing various forms of shelter, which ought to be taken seriously when planning a reuse project. Wherever these time-tested examples have been disregarded we find buildings that are hot, noisy and generally uncomfortable. In some cases there may be need for adjustments and compromises both to the interior and exterior of the buildings to accommodate certain uses – offices, etc. which will require a flexible policy to meet the demands of functional and adaptive use/re-use of heritage buildings while maintaining most of the facades and important heritage elements. This is also a common practice in many cities throughout the world as heritage is not static or fixed but is contingent in nature and therefore situational. There will be no point in freezing time by prohibiting interior alterations to allow new uses of the buildings since many were once private residential colonial homes and therefore not constructed for public use. However, any conservation, alterations or other works ought to be approved by the various agencies – City Council, National Trust and Central Housing and Planning Authority with detailed plans and proposal of the intended works to be carried out. Careful monitoring of the works to be executed will be done by the respective agencies also.

There are benefits from adaptively reusing heritage sites including environmental, social and economic along with encouraging innovation among architects and developers. Environmental benefits are significant, as these buildings offer so much to the landscape, identity and amenity of the communities they belong to. One of the main environmental benefits of reusing buildings is the retention of the original building’s ‘embodied energy’. Embodied energy is defined as the energy consumed by all components associated with the production of a building, from the acquisition of natural resources to product delivery, including mining, manufacturing of materials and equipment, transport and administrative functions. By reusing buildings, their embodied energy is retained, making the project much more environmentally sustainable than an entirely new construction. New buildings have much higher embodied energy costs than buildings that are adaptively reused. It has been noted that the reuse of building materials usually involves a saving of more than 70 per cent of embodied energy that would otherwise be wasted. In this context the adaptive reuse of heritage buildings makes good sense. It costs less in most instances to reuse an old building rather than demolish and rebuild. This saves the environment from the huge amount of building waste that will accumulate as a result of new constructions and energy consumption. Restoring an existing structure not only reserves a significant amount of viable material but also reduces the amount of waste that enters a landfill. Granted there will be upgrades required to standardise the building for its new use including making it energy efficient among others but the cost remains often lower than an entirely new project. Compared to the energy need for demolition of an existing building, landfill and the construction of a new building, the restoration of an existing structure requires far less energy. In most instances an existing building has in place public infrastructures which will limit the need for further energy expenditure required for a new building in a new location.

Keeping and reusing historic buildings has long-term benefits for the communities that value them. When done well, adaptive reuse can restore and maintain the heritage significance of a building and help to ensure its survival. Rather than falling into disrepair through neglect or being rendered unrecognizable, heritage buildings that are sympathetically recycled can continue to be used and appreciated. Historic buildings with their authentic and original architectural details have that ‘special value’ that modern buildings often lack. Character and uniqueness, qualities often prized in antique furniture are also valued in historic monuments. Through restoration, these qualities can be further appreciated. We therefore need to seek new ways to reduce the environmental, social and economic costs of continued urban development and expansion and realize that the quality and design of the built environment in our towns and communities are vital to our standard of living and our impact upon natural resources. Our lifestyle is often enhanced not just from the retention of heritage buildings, but from their adaptation into accessible and useable places.

The reuse of heritage buildings in established residential areas can provide the community with new housing and commercial property opportunities. Location, access and public transport availability will always attract developers, and the variety of buildings available for reuse mean that a mixed of dwelling types can be offered, with broad appeal to buyers as a result. Instead of using new land for development, restoring heritage home gives the possibility of a vibrant, historic community that is suitable for residential use. Often, the homes in new developments can look monotonous and lack individuality and character. However, heritage homes offer the diversity and uniqueness that is often desirable among many potential buyers in today’s world. However, there must be a high level of appreciation for heritage and the will to sustain this pride and identity for future generations.

Furthermore, architecturally it is important to remember that even though an old building may be in disrepair it has already been standing for many years. Repairing it will reinforce the materials and methods that would have certainly saved its heritage value and sustained its future integrity. Sadly we are losing significant treasures. Nonetheless the market appeal of reused heritage buildings has nevertheless been popular because of their originality and historic authenticity. The adaptation of heritage buildings presents a genuine challenge to architects and designers to find innovative solutions in finding suitable adaptive reuse projects. Revitalizing the skills and craftsmanship of wood constructions and designs would be essential to this process as this is rapidly disappearing and will soon be lost altogether. Training the young generations to sustain this skill will lead to its long term survival and aid the reuse plans.

As development pressures increase more heritage buildings could be considered for reuse serving as a great stimulus for creative designs that can retain heritage significance. To aid this type of development and heritage preservation practice many countries have initiated heritage incentive programmes including grant funding to home owners who make application for preservation of their buildings as a means of encouraging the long term survival of the historic treasures. This is a possible way whereby both parties can benefit – the owners being encouraged and the heritage agencies ensuring the survival of the city’s heritage.
It can also be achieved through public private partnerships, stakeholder networking and greater collaboration among the relevant organizations including the tourism sector as sustainable tourism is closely linked to heritage preservation and heritage and tourism are certainly intertwined. Heritage exists in every facet of our daily lives and is inescapable as we progress in future development. As such sustainable tourism is another such area that can be considered as a means of aiding heritage preservation. It is defined by the UN-World Tourism Organization (UN-WTO) as one that “leads to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems as it seeks to respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance among others. It meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future. This is in keeping with the notion of sustainable development defined earlier.

In keeping with this notion it has been further posited that while cultural heritage creates a foundation for tourism’s growth, tourism has the power to generate funds that make preservation possible. Cultural heritage loses much of its meaning without an audience, and a society participating in and benefiting from it. Without sustainable management, tourism loses its potential for growth. As expressed by World Bank President James Wolfensohn, “cultural can be justified for tourism, for industry, and for employment; but it must also be seen as an essential element in preserving and enhancing national pride and spirit.” The process of globalization has created the situation where the expectations of tourists are the same both with respect to the quality of services in all destinations and with respect to the authenticity based on local attractions and experiences, which should be unique and different for each destination. The key element in maintaining destination attractiveness is the protection and presentation of natural and cultural heritage and its sustainable utilization for tourism development. The sustainability concept is of equal importance for long-term heritage tourism development, destination competitiveness and heritage protection. While the aim is not to examine tourism, it is essential to provide an apt background and context to illustrate its link to sustainable heritage preservation. Cultural heritage tourism (CHT) is viewed as travel concerned with experiencing cultural environments, including landscapes, the visual and performing arts, and special lifestyles, values, traditions and events. It is important to stress that CHT involves not only tangible or visible heritage such as sites, colors, materials, and settlement patterns, but also intangible heritage such as societal structures, traditions, values, and religion. These values are embodied in the monuments and building forms of our landscape.

Cultural tourism in particular is a search for and a celebration of that which is unique and beautiful, representing our most valued inheritance. Authenticity is at the realm of this type of tourism and the Nara Conference on Authenticity clearly stated that “all cultures and societies are rooted in the particular forms and means of tangible and intangible expression which constitute their heritage, and these should be respected.” When referring to the parameters that must be taken into account with regard to authenticity, it mentions “form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors.” It is slowing being realized in the tourism industry that our rich architecture was actually a tourism product, that the verandahs and fretwork, the arched porticoes, courtyards and jalousie windows were part of what people were coming to see not only in Guyana but the Caribbean region, rather than a vast concrete imitation of the western world which they had just escaped from back home in the metropolitan countries. A growing cultural pride and self-awareness over the last two decades has also had its effect, both on the public and on the architects themselves. Governments and resort planners in some countries now tend to be more sensitive in linking new developments with traditional urban patterns. This is an area we need to work on strengthening also.

Keeping the character of the historic landscape is crucial to maintaining a continuous appeal for an ever increasing number of visitors. Preservation of the historic features of the sites sustain a vital sector of the country’s tourism market. In most cases there are postcards, brochures and booklets giving information about these structures and sites, and the sale of craft items inspired by references to the sites also help to promote the economic sustainability of the location. Apart from promoting the heritage products and attractions it is essential to aid their preservation through charging of conservation fees as done in some countries. The introduction of an earmarked tax mechanism which will feed a common national fund for supporting conservation and valorization activities should be considered. Guyana currently has no such tax system except duties tax and the recently 16% implemented Value Added Tax (VAT). However there is no earmarking of funds towards heritage preservation and conservation. Therefore this earmarked tax system is another area which can bring about sustained and long term benefits for ensuring the survival of the nation’s heritage value. A percentage calculated is charged to each visitor and paid upon entry to the country which is used for the preservation of the country’s heritage resources as a means of sustaining their future. In addition taxes are also added to services hotels, restaurants etc. This has to be done in a systematic manner as dictated by legislation and tax reforms. As such sustainable tourism if properly managed can significantly aid in the preservation of our nation’s heritage through the reuse and maintenance of the many historic monuments, promotion of traditions and customs, art forms and lifestyle [cuisine, dance, music, dress, architecture, and anthropology among others] once kept authentic. Guyana’s diverse heritage ranging from pre-Columbian [indigenous heritage], plantation, agricultural heritage [sugar industry/estates], industrial heritage [mining etc], transportation and communication [dray carts, ferries, locomotives], traditions, architectural heritage [market scenes, rural lifestyles], architectural heritage [designs, forms, materials] among others are all aspects which can be revitalized and effectively promoted through tourism in a sustainable manner thereby accruing benefits for both the heritage and tourism sector while satisfying the tourists needs for heritage and authentic tourism. While some of these infrastructures are no longer functional their intangible cultural heritage can be kept alive through stories and displays which can compliment the existing ruins as it will certainly improve visitor expectations and experiences and contribute to long term heritage preservation and promotion. This is sustainable tourism and heritage preservation complimenting each other.

The built and immovable heritage of any nation is therefore a lasting resource that can be adapted and utilized for its benefit today. Even if traditional uses for its historic structures and sites are no longer applicable or viable, there are other current uses to which they can be put. The management of heritage sites in this way makes an important contribution to sustainable development within small nation-states. These opportunities now available to planners and community leaders come at a time of reduced economic activity from traditional revenue earners such as agriculture and manufacturing. While the careful use of these sites provides added resources for tourism development, it also complements the national education systems and reinforces a community awareness of each country’s heritage.  

However, tourism brings both positive and negative impacts but the former can outweigh the latter with effective management and participation, cooperation and partnership, vital prerequisites for the implementation and performance of sustainable tourism and protection of heritage as the basic tourism resource.

The positive impacts include the enhancement of public places, the protection and upgrading of valued places such as national parks and historical sites and improvements in infrastructure and telecommunication facilities. Furthermore, restoration of a historic building for tourism satisfies environmental, functional, economic, social and cultural sustainability. Positive impacts include job creation, reuse of historical structures and revitalization of heritage, preservation of heritage, economic gains from more visitors and spending capacity [longer stays], development of gastronomy, endogenous growth and cultural industries; networking with organizations, local, national, regional and international for assistance and input towards training in heritage conservation and management fields; development of exchange programmes for professionals in the fields; exploring new avenues for funding; increased partnerships and relations – signing of MoUs thus creating binding links and agreements and commitments for heritage tourism, conservation management of Guyana’s historic resources.

On the other hand tourism industries often create negative impacts in the environment, society, culture and sometimes even on the economy. Over time the increasing number of tourists can lead to severe negative impacts in the environment such as the deterioration of natural resources, the causes and incidences of various kinds of pollution, drinking water shortages, overcrowding and the production of litter. These are mostly negatives that occur in the urban or city area. There are also impacts on the building scale such as damaged to monuments which are frequented by visitors who often climb on them to take photographs thus damaging their surfaces. Other negative impacts include erosion of culture due to mass tourism [large influx of tourists], threaten the carrying capacity if the sites [too many visitors], increase in pollution [transportation, traffic congestion, heavy energy usage [to provide services [water, light etc for tourist].

Overall it can be concluded that carefully planned adaptive reuse of the heritage structures is a viable option for aiding sustainable heritage preservation. Tourism of course compliments this process significantly and can be effective if there are strengthened legal frameworks and policies, public awareness and heritage educational programmes, strong sense of heritage appreciation among citizens, capacity building programmes, heritage incentives and overall strong stakeholder participation and networking. It is understandable that not all the suggestions can be adopted overnight but incrementally they can become reality.

References


Advocacy & Community Participation in the Preservation of Cultural Heritage
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Abstract
World Monuments Fund is an advocate for the preservation movement. Since 1996 WMF supports the protection of threatened sites through the biennial World Monuments Watch program. The historic centers of Buenos Aires, La Plata, Argentina, and the Cabanyal neighborhood of Valencia, Spain, were proposed for their inclusion on the Watch by private groups concerned about the loss of their heritage caused by migration, demolition, and inadequate legislation. Supported by WMF, these groups organized Watch Day, public events that raised awareness and achieved improved heritage protection laws. WMF believes cultural heritage is a resource to be recycled, promoted through public campaigns, protected by effective legislation, and supported by sustainable economic strategies.

World Monuments Fund (WMF) is an advocate for the preservation movement. Every project it supports is an opportunity to raise awareness among the public, government agencies, community organizations, and potential donors about the importance of heritage preservation. Through programs like the World Monuments Watch (Watch), WMF speaks out in support of the protection of sites around the world. ✓ Every two years since 1996, the Watch is a call to action for cultural heritage around the globe that is at risk from the forces of nature and the impact of social, political, and economic change. Starting in 2012, WMF offered communities behind the World Monuments Watch sites the opportunity to organize their own Watch Day events to advocate for the heritage that is central to their lives. ✓ From Argentina to Poland and Madagascar to Japan, communities came together to preserve, protect, and celebrate treasured places and local cultures. Including Georgetown, Guyana where a Watch Day for the Georgetown City Hall was organized in 2014.

WMF has supported cultural heritage preservation projects in more than 30 historic towns, sometimes in response to devastating natural disasters such as floods and earthquakes as well as man-made destruction caused by armed conflict, uncontrolled tourism, or development pressure.

In other cases, such as the historic centers of Buenos Aires and La Plata in Argentina, and the Cabanyal neighborhood in Valencia, Spain, they were proposed to the Watch by neighborhood groups and professionals concerned about the disappearance, abandonment, and deterioration of their urban heritage caused by migration, uncontrolled demolition, changes in urban planning regulations or inadequate legislation, as well as by infrastructure projects that threatened the integrity of the urban fabric and affected the quality of life of its inhabitants.

The Historic Center of Buenos Aires

The Historic Center of Buenos Aires contains nearly 100 National Historic Monuments and almost 6,000 designated sites. ✓ The city’s Secretary of Culture identified 1200 additional buildings as having heritage value without protection of any kind, and there are many other examples that deserve to be preserved. On the other hand, the average construction in Buenos Aires in the previous 20 years was 1 million square meters per year, but since 2008 the average increased to 6 million. A large portion of the construction occurred in the Historic Center from the demolition of existing buildings, many of which had heritage value.

In light of this situation, the private organizations Basta de Demoler and Fundación Ciudad joined efforts in the fight against the indiscriminate destruction of the heritage of Buenos Aires and nominated the Historic Center to the World Monuments Watch list of 2010. Their proposal included the following objectives:

- Promote community participation in the defense of cultural heritage;
- Propose a clear and inescapable law enforcement;
- Propose a coordinated and participatory management system enforced by qualified professionals; and
- Promote the complete and final documentation of the built heritage of the city.

In order to raise awareness towards the precarious state of the city’s heritage and inspire improved protection and development, the Historic Center of Buenos Aires was nominated to the World Monuments Watch list for 2010.

legal protection, Basta de Demoler and Fundación Ciudad, with support from the embassies of France and Brazil organized the symposium “Salvemos Buenos Aires: 1er Encuentro de Gestión de Patrimonio Arquitectónico y Urbano,” which took place in Buenos Aires in September 2010. The resulting document published with the support of WMF and Fundación YPF, “Defendamos la Ciudad de La Plata,” was launched at the headquarters of the Legislature of the Autonomous City of Buenos Aires on October 5, 2011, and the next day, the legislature approved the expansion of the protected area of the Historic Center to include more than 40 blocks and 200 historic buildings.

However, two months later, the same legislature, under pressure from city officials decided not to extend the 25/48 law that temporarily protected all structures built before 1941 (about 140,000 buildings). Basta de Demoler and six other NGOs protested publicly and filed a court injunction to reinstate the law and prevent the demolition of buildings constructed before 1941.

Despite these efforts and achievements, the long-term protection of the heritage of Buenos Aires has not yet been secured and the constant surveillance of activists from Basta de Demoler and similar associations, seem to be the only obstacle that stands against the indiscriminate demolition of the built heritage and the environmental degradation of Buenos Aires, caused by the pressure of real estate development. Their most recent battle has been the fight to prevent the construction of an illegal tower next to the historic Santa Catalina de Siena Convent.6

City of La Plata

La Plata, founded in 1882, is the political and administrative center of the province of Buenos Aires.7 Its design, based on hygieneist and rationalist concepts, corresponds to a grid crossed by two main diagonals with a square eyesight (El Bosque). Its architectural heritage is composed of a mixture of houses of different styles which were adapted, harmoniously in most cases, to changes in the habits of the population. Starting in the 1960’s some initiatives threatened these design principles by advocating the demolition of historic buildings or the paving over of public gardens to build new structures in excess of three stories. In 1982, the Municipal Decree 5338/82 protected properties built before 1930, and in 2000 the Ordinance 9231 defined 12 heritage areas and listed 13,000 properties to be preserved, but left out important zones, allowing the demolition of historic buildings to construct tall structures. In 2006, the still current Ordinance 1579 protected only 1,826 properties of heritage value, of which 200 have been already demolished. Finally, in 2010 the adoption of the new Code of Urban Planning (COU) further increased the number of permitted levels and functional units, reducing the protection of the listed buildings which are being demolished and replaced with new speculative buildings.

In light of this situation, and particularly in response to the demolition of an iconic façade, a group of professionals disturbed by these acts decided to summon the neighborhood to discuss alternative ideas and strategies. This resulted in an assembly called “Defendamos la Ciudad de La Plata.” Today the Assembly and the civil association derived from it: “S.O.S. La Plata,” work in a coordinated manner. One of their activities was the nomination of La Plata to the Watch 2012. Their objectives include:

• Suspension of the COU and the adoption of a code that has the consensus of the community stakeholders, takes into account the uniqueness of the city and plans for the future in a rational and sustainable manner;
• Creation of clear and positive rules for builders, architects and related professionals, and owners of historic houses;
• Limitation of construction of tall buildings;
• Enhancement of the urban and suburban spaces and their surroundings, with improved economic building indicators and a push to lower densification in the center of town;
• Suspension of the concession of illegal temporary building permits which give false expectations to investors;
• Cooperation of specialized entities in the development of feasible and intelligent intervention projects;
• Community participation through communication and social commitment achieved by clear mechanisms and without political manipulation;
• Economic development in sectors neglected by developers;
• Improvement of public transportation and parking in central locations and development of alternative means of transport such as bicycles and trams;
• Creation of skilled jobs in conservation and restoration;
• Recycling of construction elements and promotion of the use of renewable energy;
• Identification of the inhabitants with their city and appropriate care of public and private spaces.

The Assembly and S.O.S. La Plata promote their goals through a website, facebook and twitter and through public events, such as demonstrations and protests, as well as legal injunctions against illegal demolitions. In October 2012 a series of Watch Day program, WMF sponsored the “Week of Heratige at Risk,” consisting of a series of public events that included talks in schools, a film series and advertisements through social media, with the aim of raising local citizen’s awareness about the unique characteristics of the city of La Plata, strengthening their identity and adding people and similar heritage organizations to the campaign for the protection of the city. The events were organized by S.O.S. La Plata and had the participation of 300 residents, professionals and fine art students.8

Neighborhood of El Cabanyal

El Cabanyal is a settlement of sailors and farmers established in the sixteenth century north of the harbor and about three miles east of the Old Town of the city of Valencia, Spain. Originally made up of small residential barracks, the Cabanyal-Canyamelar district began to organize itself in the late eighteenth century with the construction of the Church of the Rosary and the Chapel of the Angels, and its first streets developed as a connection of the two churches.5 In the nineteenth century, the neighborhoods of Cabanyal, Canyamelar and Cap de Franca consolidated as a separate municipality of Valencia named Poble Nou del Mar, with a population of about 8,000 inhabitants and 1,746 buildings, mostly of residential use. In 1897 it was annexed to the city of Valencia and the process of the gradual replacement of the old barracks by the current buildings started and continued until the first third of the twentieth century. The Cabanyal-Canyamelar is an eclectic assembly of vernacular architecture, representative of a popular modernism expressed in the rich tile decoration of its façades. It is a unique neighborhood in Europe for its heritage value, the quality of its urban fabric, its colorful social life, and its proximity to the sea, the harbor

and the university. It is one of the three districts that make up the Historic core of Valencia and was declared a site of Cultural Interest by the Generalitat Valenciana in 1993.

Despite its landmark status and legal protection, the City Government of Valencia, in its Special Plan for Protection and Internal Reform (PEPRI), proposed the construction of a wide avenue (extension of the Blasco Ibáñez Avenue) which runs through the neighborhood and divides it in two, profoundly altering its urban fabric. This intervention involves the expropriation and demolition of 1,651 houses while proposing the introduction of a construction model totally alien to the traditional style of the neighborhood. This plan, proposed in 2000 entails the destruction of 261 listed buildings, most notably the historic fish market (Lonja de Pescadores de la Marina Auxiliar).

The Ministry of Culture of Spain declared in 2009 that the PEPRI prescribed the destruction of the Historic Cabanyal-Canyamelar, and proposed that the municipal plan was modified to ensure the protection of the historical and artistic values that motivated the protection of the neighborhood. Since then, a victim of the battle of wills between local and national government, the district suffers from neglect and physical deterioration caused by the pressure that the City Government has been subjecting it to for the past years. The current pressure was preceded by a long period of legal and economic uncertainty due to the lack of urban regulations during much of the second half of the twentieth century and more recently by the approval of the PEPRI. Meanwhile, the buildings acquired by the City with the intention of demolishing them to implement the Special Plan lie abandoned and pose a danger to the safety of local residents. For these reasons, the Neighborhood Association Cabanyal-Canyamelar founded in 1977, proposed the inclusion of neighborhood to the Watch 2012. Their objectives were to:

- Call international attention to the Heritage-Urban-Social problem affecting the historic fabric of the Cabanyal-Canyamelar;
- Revitalize and regenerate the neighborhood as an opportunity for progress, taking advantage in a participatory manner of the potential that makes it unique and singular;
- Restore the connections of the neighborhood to the west with the city and to the east with the waterfront; improve east/west permeability and implement an ambitious program of rehabilitation and retrofitting to regenerate and revitalize the neighborhood;
- Take the necessary steps to revitalize the neighborhood as a residential coastal area offering a high quality of life for current and new residents.

In July 2012, four local organizations: the “Asociación de Comerciantes, Industriales y Profesionales del Marítimo” (ACIPMAR), “Salt Ben Cabanyal,” the neighborhood association “SI VOLEM!” and the “Asociación de Vecinos y Vecinas Cabanyal-Canyamelar,” set aside their differences and signed a common proposal to promote “rapid regeneration, revitalization and invigoration of the Cabanyal-Canyamelar.”

In October 2012, as part of the WFM Watch Day sponsored event, the neighborhood association of Cabanyal-Canyamelar organized a tour of the neighborhood with the participation of WFM-Spain and renowned personalities from the worlds of culture and heritage of the University of Valencia and the Real Academia de Bellas Artes de San Carlos, and the president of the Heritage Awards of the European Union, all of which agreed to defend: “a controlled conversion of El Cabanyal to allow new functions but without losing the essence of the neighborhood.” This event had great media coverage and helped convince many that the opposition of the neighbors to the Special Plan was not a politicized or partisan struggle, which gave the advocates more credibility and general support.

The following message was written by the nominator of El Cabanyal to the Watch summarizes the results of this initiative:

“Undoubtedly the inclusion of El Cabanyal in the 2012 World Monuments Watch List, once the project was paralyzed by the Ministry of Culture, meant a turning point, which is slowly paying off, not only to reinforce the stopping of the municipal project, which is more than dead and only needs a burial, but also to start laying the foundations upon which we can plan the future of our neighborhood. A plan that takes advantage of the historic value and of those qualities that make us unique and different from the rest of the city. A few weeks ago we had a meeting with the Hotel Business Federation of Valencia and they fully agreed with this approach. Two years ago this would have been unthinkable.”

The neighborhood associations promote their goals through the web platform of Salvem el Cabanyal9, and in 2013, the Living Cabanyal Archive, a citizens’ initiative aimed at raising awareness about the historic waterfront of Valencia by promoting sustainable town-planning through cultural identity and participation, received the European Union Prize for Cultural Heritage/Europa Nostra Awards.10

In July 2014 the Supreme Court of Spain dismissed an appeal from the Generalitat Valenciana, and upheld the 2009 Ministry of Culture’s determination to stop the PEPRI, declaring that the cases involving destruction of cultural heritage where of the competence of the State. Furthermore, it ordered the city government to revise the Special Plan to warrant the protection of the historic values that motivated the inscription of El Cabanyal as a historic monument.

The verdict was welcomed by many preservation organizations, but the threat of the PEPRI albeit in a modified version, persisted until May 2015 when as a result of Municipal elections, Joan Ribó the new mayor of Valencia, who is sympathetic with the preservation of El Cabanyal was elected.

Final reflections

Cultural heritage is the reflection of the achievements of communities through time which encompasses a wide range of places and extraordinary sites ranging from the humble and unknown to the majestic and emblematic.

WFM recognizes that investing in the preservation of cultural heritage implies investing in the human framework that allows the continuity of cultural traditions through both local use and enjoyment, as well as by the participation of individuals from around the world in the appreciation and preservation of this common heritage. Cultural heritage is a resource that can provide a practical benefit through recycling and replacement of speculative demolition by speculative rehabilitation, through the adoption of policies that promote adaptive reuse and are disseminated through extensive public awareness campaigns.

Especially in the case of historic districts, heritage preservation is directly associated with the preservation of the environment and quality of life of its inhabitants, therefore, the interventions proposed by public entities should take into account the views of a broad representation of actors

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9 Vicente Gallart, Vice Presidente, Asociación Véneta Cabanyal-Canyamelar, in a message to WFM, April 7, 2013.
10 www.cabanyal.com
11 www.cabanyalarchivovivo.es
and not just a limited group of experts or investors.

Finally, it is necessary to strengthen the administrative and management capacity of local, regional and national governments, through the development of effective protective laws and legislation that promote innovative financial strategies that support the development of healthy communities and markets that can sustain revitalization and development programs, thereby ensuring the long term preservation of heritage, environment and quality of life.

References
Prehistoric Guyana: Within the Community Landscape
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Abstract
On the basis of new discoveries, Guyana’s prehistoric archaeological past dates as early as 12,000 years ago. The country’s prehistory is defined by the Northwestern shell midden complex, raised field systems, petroglyphs, and habitation and burial sites across the landscape. In light of economic development, population growth and settlement expansions, many archaeological sites are nestled within our community landscape. These prehistoric monuments in many instances go unnoticed, while occasionally, they contribute fundamentally in fostering cultural identity and community livelihood activities. Although many of these sites are recognized as monuments of significance locally, they have little legal protection. As a result, many archaeological sites exist today unguarded as they were centuries ago, while few are managed and protected by the communities who occupy these remarkable cultural landscapes. In the absence of a CRM infrastructure in Guyana, the need for public participation in archaeology and management has emerged.

Heritage & Local Communities in Guyana: Challenges, Opportunities and New Directions
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Abstract
Traditionally, local communities in Guyana have had limited influence on the identification and preservation of heritage. In many instances, heritage elements exist as physical monuments in communities but with very little meaning to local people. This can be translated to mean that the sense of local ownership of heritage may be weak. In this context, there may be an obvious need to probe deeper to understand what a community really values and then plan around this understanding. Some recent cases however point towards a change in this situation with notable evidence of some local communities now clamoring to have a greater say in community heritage matters. While this is encouraging, there are still several challenges along the way, particularly given a still strong tendency towards centralised decision-making and the limited capacity of local government.

On the part of the communities themselves, there is the propensity to approach central government seeking support for heritage preservation as a need, as opposed to pursuing heritage as an asset. Changing this mindset will not only require community empowerment but also placing local government at the forefront of protecting, improving and managing the heritage environment. On the other hand, current global focus on heritage as an important aspect of sustainable development implies the need to build from the bottom up. In this regard, one can justifiably argue that the involvement of local communities in heritage identification and preservation is quite in line with sustainable development goals. It is however necessary to change the way the issue of heritage at the community level is approached, particularly the mechanisms or techniques adopted in the heritage process. It is also important for local communities to be stronger advocates for their own heritage cause.

This paper offers some reflections on heritage and local communities in Guyana. Drawing largely from four cases, it discusses key challenges, opportunities, and possible new directions. Finally, a few recommendations have been suggested and a case presented for heritage to be embedded in a community planning framework and development process.
World Cultural & Natural Heritage
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Abstract
UNESCO (United Nations Educational, Scientific and Cultural Organization) World Heritage Sites are the premiere heritage tourist destinations across the globe. There is no higher honor for a heritage site, and it comes with great potential for economic advancement and prosperity. The 1972 World Heritage Convention sets the criteria for inclusion on the World Heritage List, and defines the principle of Outstanding Universal Value (OUV), the core distinction of a World Heritage inscription. The attributes of OUV are authenticity and integrity, and these are enumerated and briefly clarified in the World Heritage Operational Guidelines. All World Heritage sites are required to have a management plan to protect the attributes of OUV. Periodic reporting to the World Heritage Committee is mandated by the operating guidelines. When contested, a “World Heritage Impact Assessment” is necessary to evaluate possible harm to the heritage site and its OUV.

The processes of World Heritage Site designation are lengthy and complex. A review of the San Antonio Missions World Heritage Site’s inscription process, which culminated successfully in 2015, will give insight into all the elements of the application. The heart of the nomination is the justification for inscription. This section has the statements of authenticity and integrity, the statement of OUV, and a detailed comparative analysis of other properties around the world with similar OUV. The case study will explain the pioneering methods used in the comparative analysis that were critical to success.

The UNESCO World Heritage Convention calls for protection of the “outstanding universal values” of the inscribed site—the reasons why the place is worthy of World Heritage status. Impacts of the OUVs are to be managed, identified in advance, and mitigated as necessary for proper protection. Almost any type of physical change will have some impact on a World Heritage Site. Physical changes may come from new infrastructure, real estate development, and civic improvement projects. The impact may be small or large, positive or negative, direct or indirect, and considered over short- and long-term periods. Long-term, participation in the global community of heritage conservation is highly advisable for successful nominations and good for management. This is principally done through ICOMOS and the ICOMOS International Scientific Committees. Social media sites on the internet can also be valuable.

Management of a World Heritage Site requires recognition of the general fragility of heritage sites, especially the intangible heritage connected to people and their cultural heritage that is often part of the OUV. The heritage site can be a productive resource indefinitely, but only if the place is managed well. If not, then it can also be badly damaged or destroyed by the increased attention, tourism and real estate development pressures.

I aspire to be a citizen of the world. That is a sentiment I first heard working in Cuba, when a colleague began her presentation at Museo Ernest Hemingway with that announcement. I think it’s very important in the context of my points about the nomination document for UNESCO World Heritage inscription. We must think of ourselves as citizens of the world. Global citizenship has obligations: the practice of empathy is one and participation to improve conditions of humanity is another. As an architect, I think about my role in the world and the things I can do. I can be an advocate for quality, quality design solutions and quality management of heritage resources. Good design and good management leads to better solutions, more durable and more sustainable over time. World Heritage is a program to enhance the quality of life for all humanity. Guyana participates as a signatory to the World Heritage Convention and its Operational Guidelines. The management of World Heritage, a detailed plan of which is a required element of the nomination, requires excellent documentation of the things to be protected, exemplary protection mechanisms and a long-term plan for sustained care.

What’s the potential value of the World Heritage inscription? Why would one want to engage in this? Of course, people can manage things without a World Heritage inscription, through laws to protect designated landmarks and historic districts. But we like to elevate some places up to the status of World Heritage. What’s the added value? There is big economic market value. Heritage tourism is a great source of revenue; it can be a major player in the economy of a region. There are great educational, social, and political values to a World Heritage site, as well. Heritage values include national identity and continuity of society, understanding who you are, where you come from, and how you fit into the global picture.

The ingredients of the nomination document are provided in the World Heritage Operating Guidelines (rev. 2105). The process is lengthy and arduous, but worthwhile. The guidelines do not express the value of the nomination process itself. I assisted on the nomination document for the Missions of San Antonio and observed hundreds of people working together on one common objective for over 8 years. The process galvanized a community of stakeholders around the need to conserve and protect local heritage. Before the document went forward to the World Heritage Committee, I declared that we had achieved something very important already; with or without a successful inscription, because we all worked together on the document. Along the way we discovered the heritage identity of our community. A result-oriented effort is fine, but also recognize that the process has great value to the nation as well as the people who are involved in preparation of the nomination.

Outstanding Universal Value
The World Heritage Convention has criteria for inscription that includes an intellectual concept called Outstanding Universal Value (OUV). The OUV is understood and measured in the attributes of authenticity and integrity, as described in the Operational Guidelines. The OUV definition from the guidelines says “cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be a common importance for present and future generations of all humanity.” This OUV is a big concept, and it can be a difficult thing for politicians, stakeholders and supporters to discuss. Consultants who work with heritage sites have developed a way to help people understand the OUV concept. Here is how it works: substitute the word “local” for “universal.” Consider and discuss “outstanding local value,” instead of universal value, and the dialogue flows easily and better. List the outstanding local values, and then consider how they add up to something exceptional on a global scale.

There are two types of World Heritage, cultural and natural. The natural is the physical and biological formations, geological and physiographical, and natural sites. The cultural heritage includes the monuments, thematic groups, and sites/places. The two types can be combined into
one inscription, and there are many examples of that. The World Heritage Convention identifies the International Union for Conservation of Nature and Natural Resources as the official advisory body to the World Heritage Committee on natural sites, and the International Council of Monuments and Sites (ICOMOS) for cultural sites. Technical information is available from a third advisory body, the International Centre for the Study of the Preservation and Restoration of Cultural Property. The focus of this paper is on the cultural sites.

The OUV has six criteria for assessment of cultural sites, provided in paragraph 77 of the Operational Guidelines. Nominated properties must:

i. exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;
ii. be an outstanding example of human creative genius;
iii. bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;
iv. be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;
v. be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;
vii. be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria).

The nomination document must justify the World Heritage inscription using one or more of the above criteria for assessment. The OUV is expressed through these criteria.

World Heritage is yours, mine, and ours; it belongs to all humanity. Examples include monuments like the Statue of Liberty, made in Paris; and the ancient Chaco Culture civilization, with its 2000 years of active use, unlike anything completed before or since, and numerous celestial alignments making it a sacred place with active use by Native American Pueblo cultures who are descended from the Chacoans.

Another example that may be more familiar to people of Guyana is Old Havana and its Fortifications. The World Heritage site in Havana encompasses a vast area of the city. Notably, only 26% of the historical center, the formerly walled city with over 3,300 buildings, are surviving Spanish Colonial structures. Everything else is newer; with 57% being from the first half of the 20th century. The older buildings tend to be concentrated around plazas. The architectural style is predominantly “eclectic,” and 81% of the buildings are in domestic use. So, as one traverses across the breadth and width of Old Havana, there is a lot of variety. The management plan, as developed by Eusebio Leal, City Historian, includes consideration of intangible heritage, too. Facts about Old Havana and its management are included in the UNESCO publication, A Singular Experience (2006), available in Spanish and English.

Attributes of Authenticity and Integrity

Authenticity can be difficult to define. Fortunately, Guyana has Dave Martins and his song, “Is we own.” The song is about things authentic to Guyana. The refrain of the song, altered slightly to be posed as a question, could be used as a test of authenticity: “Is it we own?” “If the answer is, ‘yes,’” then it is probably authentic. Then ask if it is honest? Is the information source about it credible? Does it convey a spirit and feeling of the place? By this process you may find the attributes of outstanding universal value a World Heritage Committee seeks. The actual nomination requires a thoroughly detailed description; the questions above can keep things focused and on target.

In addition to authenticity, the other key attribute of outstanding universal value is integrity. Integrity is the capacity of something to display its significance. The elements that make it significant need to be present. The amount of integrity can vary; and tolerance for lower levels of integrity is possible, depending on the heritage resource. A resource of architectural value, for example, would typically need high integrity so visitors can experience the architectural design. An ancient ruin of a mud brick fortification, though, might have low integrity in terms of intact, surviving form, but the value of the resource is about the evidence of a past culture, not the architecture. The operational guideline of World Heritage should be read carefully and followed closely. These can be downloaded as a PDF file in multiple languages. The latest revision is from 2015. The document is updated periodically; be sure you are using the current version.

Case Study: San Antonio Missions

In San Antonio, the inscribed property is 301 hectares, and the universal values concern endeavors and outcomes of the Spanish Colonial missionary enterprise. There are large heritage landscapes, and the descendants of the people who built the missions are present living and working in the Buffer Zone, plus engaged in cultural events. The effort of writing the nomination in San Antonio spanned over eight years. Beginning in 2006 people worked to add the San Antonio Missions onto the U.S. “Tentative List,” a mandatory step per the Operational Guidelines. In 2008 the US government published a Tentative List that included the San Antonio Missions. Potential World Heritage sites may be nominated from the Tentative List one or two at a time by the U.S. “state party” for consideration of the Committee. Per the Operational Guidelines, one of the two nominated must be natural heritage or a cultural landscape. The committee will only consider a total of 45 nominations per year. When they receive more than 45, the guidelines prescribe a priority sequence to favor underrepresented nations, underrepresented property types, and certain regions of the world. The Caribbean is one of the regions with priority.

San Antonio people continued to work on the nomination after 2008 because a complete nomination document is necessary to advance off the Tentative List and be put forward to the World Heritage Committee. Key events, largely motivated by political issues, boosted and advanced San Antonio’s nomination in 2011 – 2012. The US commenced a “Latino Heritage Initiative” led by the Secretary of the Interior, Ken Salazar, because he felt Latino heritage had not been properly documented, and was not fully represented on the National Register of Historic Places. The initiative brought San Antonio into the forefront of discussions on heritage in the US and propelled work on the nomination document for the Missions. In June of 2012, at a special event of the U.S. ICOMOS International Scientific Symposium that was hosted in San Antonio that year, Sec. Salazar made the announcement to elevate the Missions of San Antonio off the tentative list. The announcement kicked everything into high gear. Over the next 18 months the nomination document was fully completed, with lots of additional research and writing, technical reviews by international advisors, production of maps and other graphic enhancements, monthly meetings of an advisory council, and the establishment of a new policy for protection. This last item addressed a concern that the nominated property would not be properly protected, at least not to the degree that people believed the World Heritage Committee would expect to see. The City of San Antonio took action and created a Mission Protection Overlay Zone to set building height restrictions around the Mission church structures.
Notable in San Antonio, seven different entities of land owners had to agree about the nomination document. U.S. law requires that every property owner of a World Heritage site must agree to the inscription, or it cannot advance to the Tentative List. The owners of World Heritage inscribed property in San Antonio are:

- State Government: Texas General Land Office and Texas Parks and Wildlife Department
- Local Government: City of San Antonio
- Local Government: Bexar County
- Local Government: San Antonio River Authority
- Public Corporation: San Juan Water Supply Corporation (managed by the National Park Service and San Antonio River Authority)
- Private, Cooperative: Espada Ditch Company, shareholders of the acequia
- Private: Archdiocese of San Antonio

The nomination document was submitted in January of 2013, and then a year of evaluation was undertaken by ICOMOS. The technical evaluation is a mandatory element, and ICOMOS handles all the cultural property nominations. ICOMOS assigns “desk reviewers” and sends one expert to the property for a week of first-hand observation and meetings with the authors of the nomination document. In San Antonio, our field reviewer was Cuban due to the reviewer’s international expertise in serial nominations. The evaluation year concluded with issuance of a favorable review by ICOMOS. In July 2015, the World Heritage Committee inscribed the San Antonio Missions to the delight of everyone in Texas, as well as making San Antonio a ‘big deal’, elevating it among US cities.

Working with a class of graduate students, I developed a method to quantify attributes of OUV for the purpose of comparative analysis at the San Antonio Missions. Paragraphs 82 – 89 of the Operational Guidelines identify sixteen (16) different aspects of authenticity and integrity. The seminar class scaled them all from zero to five in a comparative analysis with other missions in the world, thus illustrating how well the OUV of the San Antonio Missions rate against the U.S. Inscriptions are a ‘big deal’, and it is very important for nations to have World Heritage inscriptions. Very important also for the City of San Antonio to have the distinction and recognition that elevates it among US cities.

The San Antonio Missions have OUV per criterion ii (see above) of the Operational Guidelines, “an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design.” The nomination document calls out the following elements to say the Missions have OUV because they:

- as a group illustrate the Spanish Crown’s efforts to colonize, evangelize and defend the northern frontier of New Spain;
- evangelized the area’s indigenous population into converts loyal to the Catholic Church;
- presently display all the functional elements that were once required to establish self-sustaining, socio-economic communities loyal to the Spanish Crown, including substantial remains of a water distribution system;
- are an example of the interweaving of cultures of the Spanish and the Coahuiltecan and other indigenous peoples, illustrated in a variety of elements, including: the integration of the indigenous settlements towards the central plaza, the decorative elements of the churches which combine Catholic symbols with indigenous natural designs, and the post-secularization evidence which remains in several of the missions and illustrates the loyalty to the shared values beyond missionary rule;
- demonstrate an exceptionally inventive interchange that occurred between indigenous peoples, missionaries, and colonizers that contributed to a fundamental and permanent change in the cultures and values of all involved;
- resulted in a people and culture with an identity neither wholly indigenous nor wholly Spanish that has proven exceptionally persistent and pervasive;
- retain some authenticity in use and function as their church complexes are still used for church services;
- illustrate a very high degree of authenticity in setting at Missions Espada, San Juan and the Rancho de las Cabras.

People working on preparation of future nominations can find useful information on the UNESCO World Heritage website where numerous documents, often in multiple languages, can be viewed or downloaded. The entire nomination document for the San Antonio Missions is available at www.missionsofsanantonio.org.

Comparative Analysis

A core principle of the UNESCO World Heritage list is exclusivity. The review process intends to find and inscribe only the best of the best; just one of each type, and the best example of that one type. So, if you are not the best example for your stated OUV, then the World Heritage Committee likely does not want you included. The nomination document must demonstrate through a method of comparative analysis that the OUV, as evidenced by the attributes of authenticity and integrity, has no equal.

Working with a class of graduate students, I developed a method to quantify attributes of OUV for the purpose of comparative analysis at the San Antonio Missions. Paragraphs 82 – 89 of the Operational Guidelines identify sixteen (16) different aspects of authenticity and integrity. The seminar class scaled them all from zero to five in a comparative analysis with other missions in the world, thus illustrating how well the OUV of the San Antonio Missions rate against the OUV attributes at other properties with historic significance related to Spanish Colonial missionary activity. We rated and scored attributes based mostly on information gathered from UNESCO documents and also some secondary source research. When we could not reach agreement because the attribute was deemed unquantifiable, we gave all sites the same score for that attribute. Scoring most of the attributes was straightforward. Upon aggregate, when adding up all sixteen attributes, the process gives a reasonably good picture. Based only on what was proclaimed as the OUV of the San Antonio Missions, the Missions scored very well, at the top of the list. The effort of the seminar class was adopted and transferred into the nominating document, using that idea of quantitative analysis for the comparison of the authenticity and integrity.

Management Plan and Protection of Intangible Heritage

The World Heritage Committee also reviews existing World Heritage sites, not just nominations, and there are reporting requirements. The nomination document requires a management plan to show how the attributes of OUV will be protected. The same attributes used for comparative analysis flow directly to the indicators measuring the state of conservation, and appear in the long-term plan for protection. If you can measure it, then you can monitor it and take action to protect it, when necessary. Legal mechanisms, laws and procedures for good management must be in place before inscription, and remain operational. Once inscribed, threats to the OUV must be blocked or appropriately mitigated.

The San Antonio Missions nomination document has a section on Monitoring, as required. This section includes all the technical conservation aspects one would expect to find for the archaeology and built features, plus special sections on acequia irrigation ditches, fiscal stability of the Catholic Archdiocese, and attendance at cultural events. Intangible heritage is included along with the tangible as part of the OUV attributes to be protected.
Following July 2015, with inscription of the Missions secure, one might think that San Antonio would be idle and content, but this has not been the case. Immediate pressure from real estate developers caused the City to reevaluate protections and possible impacts to UOV. Because the San Antonio Missions differ from other World Heritage sites in U.S., there is no example or guide for the local government to follow. The difference is very important to current work happening in San Antonio right now, and may have instructive lessons for other places in the world. The inverse is also true because San Antonio is looking at management lessons beyond US borders. The local population in San Antonio seeks guidance on how to manage and protect intangible heritage of the inscribed site, the heritage embodied in the local society.

The U.S. legal system, and the legal methods of preservation based in zoning ordinances, are not set up to protect intangible heritage. The City is considering incentive programs and policies to foster retention of the intangible qualities inside the World Heritage Buffer Zone. Qualities of authenticity and integrity come into play with intangible heritage. What’s the level of threat? How can intangible heritage be negatively impacted by development in a Buffer Zone? The Buffer Zones exist to mediate threats to the inscribed site. Buffer Zones protect viewsheds, for example. In this case the zone has an added purpose. San Antonio’s Buffer Zone houses, literally, the authenticity of living people.

International Community and Social Media

Participation in the international community of heritage conservation professionals is a good way to stay current and informed on matters affecting World Heritage. ICOMOS has 28 International Scientific Committees (ISC) which are essentially peer-association groups of acknowledged experts. There is a full range of opportunity for any interested person to get involved through the ICOMOS scientific committees. Engagement with a Scientific Committees will connect you to an international community of world heritage practitioners. The Eger-Xi’an Principles for International Scientific Committees (2008) offer this about the committees:

- In general:
  - ISCs continually gather a membership that will include the most recognized experts in its field of specialization,
  - be representative of all of the world regions or pertinent regions, and
  - recruit young or beginning professionals seeking such specialization; and
  - that all be given ample opportunities and stimulus to become actively engaged in the work of the Committee.
- Expert Members: meet criteria for competence and expertise
- Associate Members: wish to gain knowledge and build expertise
- Non-ICOMOS Members: Non-ICOMOS Members who can make an important contribution to the ISC may be invited to participate in committee meetings and activities

Of course, participation requires some necessary capacity to be connected digitally, plus occasional travel to a meeting, or hosting your committee in your own country. Participation in your ISC is expected, or you may be asked to surrender your membership.

Other opportunities are offered by social media sites. Linked-In and Facebook are examples. Social media provides connections to interesting people who are doing interesting things. As you explore social media you will find that time invested as a ‘citizen of the world’ will pay you back. You will find there are people around the globe encountering problems similar to your own. They have ideas and maybe solutions, and likewise you may have valuable information to share.

That’s part of being in a global community of heritage professionals. Professional networks and organizations will advance your knowledge in all aspects of the field including political advocacy, public policy, laws/ordinances, technical treatment, interpretation, risk management, disaster planning, maintenance, etc. organizations will advance your knowledge in all aspects of the field including political advocacy, public policy, laws/ordinances, technical treatment, interpretation, risk management, disaster planning, maintenance, etc.

Conclusion

My years of experience in management of heritage sites, and World Heritage specifically, indicate high importance for a strong leadership hierarchy. Clear direction from the top is essential.

In the case of World Heritage, this means leadership from the highest offices: president, prime minister, ministry of education, or whomever is the relevant agency. Roles and responsibilities must be clear for everyone, with sufficient oversight and accountability; or else the massive and complex nomination document will never be finished. Ideally, the process is ‘in-house,’ completed with the local talent who best understand the culture of the place. Outside consultants can be wonderful, but they should come in as technical advisors, in my opinion, and after the process has commenced.

Successful completion of a World Heritage nomination document requires attention to four areas, listed below, along with sustained commitment, good synergy among participants, and unity of purpose.

1. Prepare exemplary academic and scholarly content to meet high standards of ICOMOS and the World Heritage Committee. Engage expert advisors periodically.
2. Routinely seek input from Non-government Organizations and community stakeholder audiences.
3. Practice and demonstrate fiscal responsibility for resource management and financial commitment to the objective.
4. Good public relations and clear communications are necessary throughout the process. Generate marketing material to make the case for a World Heritage nomination effort and rely upon political advocacy groups to support the cause.

Historians and academic researchers produce the heart of the nomination document, along with graphic designers and photographers who make the whole thing look beautiful. Inclusion and support of the community through formal collaborations with non-government organizations and stakeholder meetings is essential, too. All the people involved must feel ownership of the common objective. The process will not succeed if people are pulling in different directions; results will be compromised and the lack of coordination will be apparent. Fiscal responsibility needs to be apparent, as well, to demonstrate the capacity for good management over time. Finally, political support is essential because there are lot of politics involved in World Heritage, plus a lot of diplomacy necessary at the international level. Successful nominations do not shy from the political dimension; you must be as strong in the political arena as you are in the academic in order to be successful.
Economics of Preservation
Economics of Preservation: Benefits, Costs, and Stakeholders
Eduardo Rojas
Graduate Program in Historic Preservation, University of Pennsylvania
102 Meyerson Hall, 210 S 34th Street, Philadelphia, PA 19104 US  E-mail: eduardorojasarq@gmail.com

Abstract
The key contributions of economics to urban heritage preservation are related to: understanding the use values of the urban heritage—the flow of economic benefits that it brings to society—and assessing the volume of resources that the community is willing to spend to conserve it. The higher the socio-cultural and economic use values of the urban heritage the stronger the case for its conservation and the easier would be to secure funding for its preservation.

In its most simple definition, economics is the study of the allocation of scarce resources among competing uses. The complex social and governance implications of the resource allocation process are highlighted by Stiglitz when the author states that: “Economics studies how individuals, firms, government and other organizations within our society make choices, and how these choices determine the way the resources of society are used.” Considering the significance of the study of the economics of preservation the Federal Preservation Institute affirmed that resource allocation decisions on how to preserve, use, or even destroy a cultural resource, whether historic or archeological, are economic decisions. In discussing the different dimensions of the study of the economics of the cultural heritage Mazzanti asserts:

“The economic benefits provided by cultural heritage should be disentangled in microeconomic and macroeconomic benefits. The former accrues to individuals as users of cultural heritage; the latter arise at a systemic level, involving society (the region, the country of reference) as a whole. Such benefits can be measured either in monetary (as flows of monetary units arising out of a stock of cultural capital), or in non-monetary terms (i.e. occupation generated by cultural activities). Monetary benefits can be either financial (whenever a real flow of money arise from cultural activity) or economic (potential and real financial flows do exist but some surplus is not captured for policy decisions). Economics deals with both economic and financial flows, analyzing and attempting to measure, whenever possible, the flow of value (rent) arising out of a capital stock.”

Thus it can be asserted that the economic perspective provides useful concepts and quantitative analysis for three key activities in making decisions about the urban heritage: advocating for its preservation, justifying the allocation of resources to this end, and finding efficient sources of funding.

Among the Many Reasons for Preserving the Urban Heritage: The Economic Value of Urban Heritage Sites
The economic values of the urban heritage originates in the flow of economic benefits that it brings to society and on the volume of resources that the community is willing to spend to conserve it. The higher the economic value of the urban heritage the stronger the case for its conservation and the easier would be to secure funding.

Throsby, based in capital theory, puts forward a useful conceptualization of the economic dimension of the heritage. Heritage is an asset; that is, social and material products capable of generating a flow of benefits to society: whether it exists in the tangible form of buildings, sites, historic city cores, or open public spaces; or as intangible cultural practices such as festivals, dances, rituals, and traditional knowledge. Heritage produces a flow of benefits that can be cultural or economic. The measurement of these flows—either directly through market transactions (for use values) or indirectly through surveys (for socio-cultural values)—allow for its valuation in objective terms.

A heritage asset, a building for instance, may have unique cultural value, a multidimensional representation of the building’s cultural worth assessed in quantitative and qualitative terms against a variety of attributes such as its aesthetic quality, its spiritual meaning, its social function, its symbolic significance, its historical importance, or its uniqueness. Many of these characteristics will influence the economic value of the building and of the services it provides. Nevertheless, there are likely to remain some elements of the cultural value of the asset that cannot reasonably be expressed in financial terms, and yet are important for decision-making. Methodologies to analyze these components of the value of the urban heritage are discussed in the following section.

The urban heritage can generate economic benefits like the cash flows received by the owners of heritage assets from the rental sale of heritage properties (the economic use value). The heritage also generates outflows of cash when its inheritance value (a non-use economic value) leads communities to assign public resources for its preservation, rehabilitation and upkeep. The interplay of these economic values of the heritage can be positive like when by rehabilitating and adapting the heritage assets for their needs private stakeholders make direct contributions to the preservation of urban heritage that are complementary to the public resources spent by communities on it preservation. Like economic use values, non-use values are also intrinsically linked to the socio-cultural values of urban heritage as they are the reason why communities want to safeguard it either to ensure the option to use it in the future or to bequest it to future generations. The willingness of the community to use public resources for the conservation of the urban heritage is the indication of the presence of these non-use values. These are the values that commonly drive private stakeholders to contribute to the conservation of heritage assets. Given that the markets do not assign a price to non-use values analysts usually assign them a monetary value through indirect methods like contingent valuation that produces estimates of the willingness to pay of individuals or communities for ensuring the conservation of the heritage assets.

The attractiveness of the heritage buildings is also affected by the quality of the neighborhoods in which they are located. Deteriorated heritage sites are not attractive to private investors or consumers and the poor quality of infrastructure, deteriorated public spaces, and other manifestations of neighborhood decay act as barriers for private investment. Therefore, the materialization of the use values of heritage buildings—a private interest—also depends on the conservation and quality of services provided by the neighborhoods—a public responsibility. These considerations are at the root of the need for cooperation among public and private actors in the conservation of urban heritage using adaptive rehabilitation strategies.

The Historic Environment Advisory Council of Scotland (HEACS) estimates that the historic environment (the conservation and development of the cultural heritage) contributes to the Scottish economy directly supporting 41,000 full-time equivalent (FTE) employees and in excess of 60,000 FTE if indirect and induced effects are considered. Overall the historic environment sector is estimated to contribute in excess of US$2.5 billion to Scotland’s national gross value added (GVA) and more than US$1.6 billion in employees’ income. The Municipality of Quito used estimates of the future valorization of the properties in the historic center as a proxy of the economic benefits of investing US$45 million in improvements of the area in a program that started in 1996. The 1993 expectations of the evaluation of that predicted increases of 10% on average of the commercial values of the properties—placing them within the range of values of similar properties in the city—were correct. By the year 2000, properties in the center acquired near-commercial value compared with the rest of the city. Between 2000 and 2007 the average cost per square meter of buildings in deteriorated condition rose from US$21 to US$97 per square meter. By the year 2010, the asking price for non-renovated houses ranged between US$148 and US$480 per square meter, with an average price of US$255 per square meter, a 163 percent increase from 2007. These prices were high in comparison with the prices of developing land in the fast growing suburbs.

### Allocating Resources to the Conservation of the Urban Heritage

**Investments in the preservation of the urban heritage**

1. Lumpy. To attain the required coordination and scale in the interventions there is the need to invest simultaneously in the rehabilitation of infrastructures, public spaces and emblematic buildings in a short period of time and on a significant portion of the heritage urban area.

2. Generate long-term returns. If well maintained the investments will yield benefits for long periods of time, anything from 5 to 50 years with some investments performing for centuries.

The large volume of resources required and the long periods of time required to reap the benefits of the investments call for the careful evaluation of these investments. Cost-benefit analysis methodologies are commonly used to assess whether the investment of public resources in the management and development of the heritage brings sufficient benefits to society as to justify the expenses. This is a highly technical step that requires the concurrence of project economists, town planners and conservators to estimate costs and benefits and evaluate the viability of the investments.

### Basic Concepts

The basic objective of the evaluation is to: (1) ensure that the investments generate benefits whose values are greater than the costs for a given margin; or (2) define the maximum volume of public resources worth investing in the urban heritage area. Social and economic cost-benefit analysis methods are used for this purpose. They are adaptations of methods used in the evaluation of urban development programs, or methods taken from environmental economics. Placing a monetary value on the cost and benefits of the heritage management programs is not easy. The costs of the programs can be estimated with certain accuracy (although cost overruns are a common occurrence). It is more difficult to arrive at a monetary figure for the benefits. Two situations can exist:

1. When the investments generate a flow of cash—a common occurrence when the services provided by the heritage are transacted in markets—the benefits can be put in

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5 For more details on the socio-cultural and economic values of urban heritage, see Eduardo Rojas, “Conservation Policy and the Urban Heritage: An International Perspective,” in this volume.


monetary terms based on the market prices for the assets and more easily compared with the costs.

2. When the investments generate or increase a flow of socio-economic benefits that are not transacted in markets it is more difficult to assign a monetary value to them requiring the use of indirect methods like contingent valuation.

Methods to Estimate Benefits

Three methods are commonly used to estimate the benefits.

Real Estate Valorization. The method estimates the increases in market value of the properties benefiting from the investments. Analysts consider that the market internalizes all the private benefits of the heritage preservation investments and turns them into an increase in the market value of the assets (the price paid by the highest bidder for the ownership or rental of the property). The sum of the expected valorization of all the properties benefiting from the urban heritage preservation program is considered a fair market assessment of the benefits generated by the program investments.

Hedonic prices. The hedonic prices approach also estimates the benefits of the programs though the increments in the value of the properties in the heritage area. However, under this approach, the final market value of the property is considered to be a function of its characteristics (size, quality of materials and finishing) and those of the neighborhood where it is situated (location in the city, infrastructure, urban amenities). This approach overcomes a limitation of the valorization approach that does not allow the analysts to identify the specific contribution of each category of investment on the total valorization of the properties. This methodology—although difficult to implement due to the complexity of calculating the different parameters—yields detailed results that allow evaluating the advantages of investing in each of the characteristics of the properties.

Contingent valuation. This methodology estimates how much the community is prepared to pay for the preservation of an urban heritage area (or building) and thus provides quantitative basis for estimating the volume of public resources that can be devoted to accomplish the objectives. Through carefully designed surveys the asks individuals how much are they prepared to pay for a well preserved heritage asset or area and the use of statistical methods to aggregate the individual responses, the analysis estimates how much communities are willing to pay for to preserve the urban heritage thus defining a ceiling of public spending in the area.

The Case of the Medina of Fez, Morocco

Fez is the second largest city of Morocco. The city has over one million inhabitants and it is historically an important cultural center of Islam that has numerous mosques and madrasas. The Medina (the center) is a bustling commercial area but suffering from loss of residents and deterioration of its infrastructures and buildings.

The economic rationale for investing US$ 27.6 million and partially financed by a World Bank loan for US$ 14.0 Million historic center of the city of Fez, the Medina—a program completed by 2005—used contingent valuation methods. The Medina with a population of about 181,000 is considered as one of the most extensive and best conserved historic towns of the Arab-Muslim world.1 Changing lifestyles, the deterioration of the infrastructure and the transformation of traditional handicraft activities into partially mechanized small-scale manufacturing contributed to the degradation of the urban environment. Since 1998 the government of Morocco is rehabilitating the Medina with a public investments of and executed by the Agency for the Re-densification the Rehabilitation of the Fez Medina a special agency of the national government. Two benefits are measured in the evaluation completed by the Government of Morocco before launching the Program:2

1. The increase in property values attributable to the Project (valuation approach) used as the proxy to measure benefits, since it captures the current and prospective economic value of the development potential created by the Project.

2. The intrinsic value of conserving the Medina as a World Heritage Site was quantified using contingent valuation methods to assess the willingness to pay for specified improvements by tourists, foreign residents and foreigners who have not visited Fez or Morocco but may still place an existence and bequest value on the Medina.

The evaluation for Fez used a survey of 600 adult visitors designed to represent visitors including both tourists and those visiting for business or other purposes. Respondents were presented with information about the condition of the Medina today and the likely accomplishments of the rehabilitation: improved appearance of the Medina’s by repairing and cleaning up buildings, streets, infrastructure, public spaces, and monuments; preservation of the Medina’s traditional character and cultural heritage for future generations; and ensuring that the Medina would continue to be a productive and vibrant living city.

Visitors to Fez were found to be willing to pay as much as US$70 each for improvements aimed at preserving and improving conditions in the Medina. Given the number of visitors each year, this is equivalent to an annual total of about US$11 million. Other visitors to Morocco share an overall appreciation for the Fez Medina and their willingness to pay for preservation is based on the value they place on its existence, and to some extent as an option value of a future visit. These visitors were found to be willing to pay about US$30 each, resulting in a total annual benefit of about US$47 million. More controversial were the estimates of the willingness to pay for the rehabilitation of the Fez Medina by European residents. The concept of surveying non-residents and non-visitors is compounded by the fact that the estimates were made through a Delphi survey that was conducted among the use of statistical methods to aggregate the individual responses. The values elicited ranged from a mean of US$12.1 to a median of US$15 per person, giving an estimate for the total intrinsic value of conserving the Fez Medina to European households of about US$310 million.

The case exemplifies the need to exercise care in estimating benefits. Program designers are intrinsically optimistic and tend to overestimate the benefits. They will naturally overstate the benefits of their proposed approach and investment mix. The case of the Fez Medina points to the over-optimistic calculations included in the economic analysis. The World Bank found that “At closing, it appears that these economic valuations were based on a number of overstated assumptions of the short-term impacts that the project would have.”3

Weighting Costs and Benefits

The three methodologies discussed in the previous section yield a value for the expected benefits of the urban heritage preservation program. The monetary value of the benefits is then compared to the costs, and the cost-benefit ratio is calculated using a set rate of discount for


11 World Bank, “Rehabilitation.”
the funds yielding a result expressed either as an economic rate of return or the net present value of the investments. For these indicators to yield positive results the benefits must be superior to the costs by a margin linked to the cost of funds (usually the interest rate). Another outcome of the cost-benefit analysis is the setting of a maximum amount of public resources that is worth investing in the urban heritage area. This amount generates a tight budget constraint for the program, a figure that greatly assists program promoters in allocating public funds.

Care must be taken not to automatically transform the tight budget constraint into a mechanical use of the “least cost option” to the specification of the investments. Heritage values are intrinsically linked to the quality of the materiality of the properties thus the interventions must be commensurate to the values.

Efficient Sources of Funding

There are two sources of funds for preserving the heritage:

1. Government institutions. Different levels of government (federal, state and local) can provide funds for the rehabilitation and development of urban heritage areas if there is sufficient political will to do so.
2. The private sector can invest funds if:
   a. There are sufficient profits for developers in doing so,
   b. Public relations gains for philanthropic donations,
   c. The heritage area offers good living conditions to households willing to purchase homes there,
   d. Entrepreneurs find it convenient to locate in an historic area, or
   e. Merchants and service providers find sufficient customers in the heritage area.

This section reviews the different sources of funding—public and private—that can be tapped in heritage management programs.

Public Resources

Full public funding of all urban heritage conservation and development interventions is an impractical as well as an inefficient and unequal proposition. It is impractical for the simple reason that the public sector does not have sufficient resources. It is inefficient because full public financing may crowd out private investments when applied to assets that have economic use value in the real estate market. It is unequal because public funds end up benefiting private-sector owners and users that most of the time are capable for paying for the benefits they accrue from the urban heritage areas.

The main source of public funds is the budget of institutions interested in the heritage in the different levels of government: federal, state and local. In Guyana the allocations from the central government budget are possibly the main source of funding for these investments, at least in the short- and mid-term. However, this needs not to be the most desirable situation in the long-term. Local governments can make significant contributions and can capture part of the value generated by the investments through local taxes. These new sources of funding can supplement the funds provided by the central government and expand the scope of the heritage preservation effort. Greater reliance on local funds will bring the heritage preservation programs more under local control.

The Rationale for Borrowing

The rehabilitation of urban heritage assets requires a large volume of funds but brings benefits to society for long periods of time. It follows that it could be convenient to finance those large investments from sources that benefit from receiving the repayments in the long-term. However, this type of financing is hard to secure: governments rarely command such amounts in a single year and face difficulties in taking long-term commitments that would introduce rigidities in their annual budgets; private investors are unlikely sources of this type of funding as they rarely embrace a long term view of these projects. Most developers seek short-term returns and the rapid turn-around of investment funds to maximize profits.

Some form of long-term borrowing can help solving some of these shortcomings. Long-term debt repaid with the flows generated by the investments (higher property tax yields, sales or rental of rehabilitated properties) is a good source of funds for heritage preservation programs in as much as it provides up-front the required funds and can be repaid over time with the benefits flowing from the rehabilitated assets. The main issues to address include: Are there private lenders willing to lend for the term required by this type of programs? Do the program managing institution have access to multilateral financial institutions (MFIs) like the World Bank (WB), the Inter American Development Bank (IDB), the Asian Development Bank (ADB) or the European Investment Bank (EIB)?

As discussed earlier, the government alone—even with the support of MFIs loans—cannot finance all investments required for the sustainable preservation of the heritage areas. The cooperation of the private sector—real estate investors, entrepreneurs, consumers, households and philanthropists—is essential. How to effectively and equitably channel their resources is a complex institutional issue whose solution needs a wide social consensus and strong political commitment on the part of the elected officials.

International Donor Funding

International cooperation can play a role in the design and implementation of urban heritage preservation programs but its contribution is limited. There are simply not enough donor funds to take care of all urban heritage sites.
References


Georgetown International Heritage Conference

June 6 - 8, 2016

PROGRAMME

Arthur Chung Conference Centre
5 Half Orchid Drive
Liliendaal, East Coast Demerara
Guyana
GEORGETOWN INTERNATIONAL HERITAGE CONFERENCE

The Georgetown International Heritage Conference, June 6 – 8, 2016, is taking place during a significant time in Guyana’s history as it comes shortly after the historic 50th Independence Jubilee celebrations which took place on May 26, 2016. The Independence observance, celebrated under the theme, Reflect, Celebrate, Inspire, focused on the nation’s journey over the last 50 years. It is therefore an opportune time to reignite discussions about our heritage and recommit towards increasing awareness about the importance of preserving Guyana’s rich and diverse patrimony.

This conference was decided by the National Trust as a boost to the heritage sector, particularly the tangible, built sector, as experts would gather to share knowledge and expertise to effectively preserve, promote and protect Guyana’s heritage resources. Hence, the main focus, though not limited to, is on improving the conservation of our tangible built heritage. This is a major activity for the Trust as it is part of the agency’s 50th Independence schedule of activities.

The heritage sector faces many challenges including, but not limited to, unplanned rapid urbanization, limited or no documentation of heritage resources, demands to modernize historic structures, the notion of ‘in with the new, out with the old’ mentality and heritage being a ‘hindrance to progress’ among others. As such the speakers will deliver presentations that focus on topics of interest to local professionals and stakeholders in an effort to improve the sector as we move towards the next 50 years and beyond.

There are seven thematic areas under which presentations will be made including Management and Policy, History and Theory, Documentation and Conservation, Heritage Sustainability, Heritage and Community, World Cultural and Natural Heritage and Economics of Preservation. All sessions will be moderated by local professionals.

The conference has been organized by the National Trust of Guyana in partnership with World Monuments Fund, who included the historic 1889 Georgetown City Hall on their 2014 World Monuments Watch, which calls international attention to at-risk cultural heritage sites around the globe. This was the first time a site in Guyana was included on the Watch, to garner local and international attention and support to help preserve the remarkable architectural heirloom, City Hall.

Participation is free of charge. The results of the conference will be published and the individual lectures will be filmed. The proceedings will be available for downloading in electronic format from www.wmif.org
PROGRAMME

10:00 - 12.00 hours

DAY 1 - JUNE 6

OPENING CEREMONY

- National Anthem - Ms. Lisa Punch
- National Pledge - Mrs. Patrick Thompson, Student, New Guyana School & Past Student, Children Heritage Awareness Programme, 2012
- Introduction of Chairperson - Ms. Tatyana Ali, Student, Queens College & Past Student, Children Heritage Awareness Programme, 2012
- Welcome & Chairing of Programme - Mr. Nigel Hughes, Attorney-at-Law
- Remarks - Ms. Nirvana Persaud, Chief Executive Officer, National Trust of Guyana
- Is We Own - Mr. Dave Martins
- Remarks - Ms. Norma Barborci, Programme Director, World Monuments Fund, USA
- Poem - Mrs. Patrick Thompson, Student, New Guyana School, Miss Tatyana Ali, Student, Queens College & Mrs. Rosal Russell, Student, North Georgetown Primary, Past Students, Children Heritage Awareness Programmes 2012 & 2015
- Remarks - Honourable Mr. Perry Holloway, US Ambassador to Guyana
- Steel Pan Rendition - Mr. Compton Narine (Baz Cama)
- Remarks - Honourable Ms. Nicolette Henry, Minister within the Ministry of Education
- Remarks - Honourable Dr. Rupert Roopnarine, Minister of Education
- Where Are Our Heroes - Mr. Dave Martins
- Feature Address & Declaration - Honourable Mr. Moses Nagamootoo, Prime Minister & First Vice President Cooperative Republic of Guyana
- Appreciation - Mr. Lennox Hernandez, Chairman, National Trust Board

END OF OPENING CEREMONY

12:00 hours Lunch

CONFERENCE SESSIONS SCHEDULE:

DAY 1 - JUNE 6

MANAGEMENT & POLICY

Moderator: Mr. Rawle Edinboro
Chief Development Planner, Central Housing & Planning Authority

10:00 hours
Brief Overview of National Trust of Guyana
Ms. Nirvana Persaud, Chief Executive Officer, National Trust of Guyana

10:15 hours
Preservation Policy in Guyana: A Legal Perspective
Mr. Nigel Hughes, Attorney-at-Law, Hughes, Fields, Stoby Law Firm

14:00 hours
Preservation Policy & The Urban Heritage: An International Perspective
Dr. Eduardo Rojas, Lecturer, University of Pennsylvania, USA

15:00 hours
Preservation Policy in the United States
Mr. Frank Sanchis, Program Director, United States Programs, World Monuments Fund

16:00 hours
Coffee Break

MANAGEMENT & POLICY (CONT'D)

Moderator: Mr. Collvern Venture
City Engineer, Mayor and City Council

16:15 hours
Urbanization & its Effect on Heritage Preservation
Dr. Allyn Stoll, Lecturer, School of Earth & Environmental Sciences, University of Guyana

17:00 hours
Management of the Cultural Environment
Mr. Donald Hankey, International Heritage Architect & Planner, United Kingdom
DAY 2 - JUNE 7

DOCUMENTATION & CONSERVATION

Moderator: Mr. Lennox Hernandez
Senior Lecturer, Department of Architecture, University of Guyana & Chairman, National Trust Board

9:00 hours  Documentation of Heritage Resources
Mr. Morris Hylton III, Director of Historic Preservation Program, College of Design, Construction & Planning, University of Florida, USA

10:00 hours  Historic Structures
Mr. Liam O’Hanlon, Structural Engineer & Principal at RSE Associates, Inc., USA

11:00 hours  Considerations for Wood in Historic Preservation & Building Conservation
Mr. Ron Anthony, President & Wood Scientist for Anthony & Associates, Inc., USA

12:00 hours  Lunch

HISTORY & THEORY

Moderator: Mr. Tristan Gomes
Architect

13:00 hours  Architectural History of Guyana
Mr. Lennox Hernandez, Senior Lecturer, Department of Architecture, University of Guyana & Chairman, National Trust Board

14:00 hours  Architectural Preservation Theory
Professor William Dupont, FAIA, NCARB, University of Texas, San Antonio, USA

15:00 hours  Coffee Break

DAY 2 - JUNE 7

HERITAGE SUSTAINABILITY (CONTD)

Moderator: Dr. Patrick Williams
Senior Lecturer, School of Earth & Environmental Sciences, University of Guyana

15:15 hours  Adaptive Reuse & Heritage Preservation
Ms. Nirvana Persaud, Chief Executive Officer, National Trust of Guyana

16:00 hours  Reconstruction of the Umana Yana: Indigenous Craftsmanship & Sustainability
Mr. Mervyn Williams, Ministerial Advisor, Indigenous Peoples Affairs

16:30 hours  Sustainability of the Cultural Environment
Mr. Donald Hankey, International Heritage Architect & Planner, United Kingdom
DAY 3 - JUNE 8

HERITAGE & COMMUNITY

**Moderator:** Major General (retired) Joseph Singh  
Special Assistant to the President, Ministry of the Presidency

**9:00 hours**  
**Prehistoric Guyana: Within The Community Landscape**  
Ms. Louisa Daggars, Coordinator, Amerindian Research Unit, University of Guyana

**10:00 hours**  
**Heritage & Local Communities: Challenges, Opportunities and New Directions**  
Mr. Rawle Edinboro, Chief Development Planner, Central Housing & Planning Authority

**11:00 hours**  
**Advocacy & Community Participation in the Preservation of Cultural Heritage**  
Ms. Norma Barbacci, Director of Programs for Latin America, Spain & Portugal, World Monuments Fund

**12:00 hours**  
Lunch

WORLD CULTURAL & NATURAL HERITAGE

**Moderator:** Dr. David Singh, Director  
Conservation International

**13:00 hours**  
**Historic Georgetown – Potential World Cultural Heritage Site**  
Mr. Lennox Hernandez, Senior Lecturer, Department of Architecture, University of Guyana & Chairman, National Trust Board

**13:15 hours**  
**Kaketeur National Park – Potential World Natural Heritage Site**  
Mr. Damian Fernandes, Commissioner, Protected Areas Commission

DAY 3 - JUNE 8

WORLD CULTURAL & NATURAL HERITAGE

**13:30 hours**  
**World Heritage**  
Professor William Dupont, FAIA, NCARB, University of Texas, San Antonio, USA

**14:15 hours**  
**Safeguarding Natural Patrimony in Guyana**  
Mr. Damian Fernandes, Commissioner, Protected Areas Commission

**15:00 hours**  
Coffee break

ECONOMICS OF PRESERVATION

**Moderator:** Ms. Sonya Roopnauth  
Director of the Office of the Budget, Ministry of Finance

**15:15 hours**  
**Economics of Preservation: Benefits, Costs & Stakeholders**  
Dr. Eduardo Rojas, Lecturer, University of Pennsylvania, USA

**16:00 hours**  
**Rapporteur’s Summary Report**  
Mr. Morris Hylton III, Director of Historic Preservation Program, College of Design, Construction & Planning, University of Florida, USA

**16:15 hours**  
**General Discussion and Recommendations**  
Ms. Nirvana Persaud, Chief Executive Officer, National Trust of Guyana & Ms. Norma Barbacci, Director of Programs for Latin America, Spain & Portugal, World Monuments Fund

**17:00 hours**  
Closing

END OF CONFERENCE
BIography of PREsenters

Ron Anthony
President and Wood Scientist for Anthony & Associates, Inc., USA, received a Master of Science degree in Wood Science and a Bachelor of Science degree in Wood Science and Technology from Colorado State University in the U.S. Since 1985 he has been active in developing and implementing preservation technology for timber structures. In 2002, he received the James Marston Fitch Foundation Grant for his approach to evaluating wood in historic buildings.

Norma Barbacci
Joined the World Monuments Fund in 2001, is WMF’s Director of Programs for Latin America, Spain and Portugal, and she manages all field projects and initiatives in these countries. Ms. Barbacci received her B.A. in architecture in 1983 from Carnegie Mellon University, Pittsburgh, PA, where she was awarded the AIA School Medal and Certificate from the Adams Fund for Excellence in the Study of Architecture. She received her M.S. in Historic Preservation in 1987 from Columbia University, New York, NY, where she was awarded the Historic Preservation Thesis award for her Master’s design thesis on the adaptive re-use of a medieval residential complex in Civita di Bagnoregio, Italy. Ms. Barbacci is a registered architect in the State of New York. Prior to joining WMF, Ms. Barbacci worked as a preservation architect at Beyer Blinder Belle Architects and Planners for 12 years, as senior project manager, associate, and studio director.

Louisa B. Daggers
Louisa B. Daggers was born in Georgetown, Guyana in 1987. She received her B.A in Tourism studies at the University of Guyana in 2010 and M.A.A in Anthropology from Boise State University in 2012. Ms. Daggers is currently reading for her Ph.D and is Guyana’s resident archaeologist. She joined the academic staff of the Department of Language and Cultural Studies, University of Guyana in 2014 and is currently the coordinator of the Amerindian Research Unit. Her current research interest includes climate reconstruction and conservation using archaeological records. She also has a vested interest in the management and conservation of Archaeological sites. Recently Daggers and Co-PI Mark Frew, received Inter-American Development Bank funding to conduct research along the line of low carbon development and conservation through the assessment of prehistoric diet breath. Ms. Daggers has published several journal papers, articles and monographs, the most recent being published in: UNESCO Culture and Development Volume 13 (2015), The Antiquity Gallery (2015), and Archaeology and Anthropology Journal (2015). She is the associate editor of the Archaeology & Anthropology journal and associate researcher at the Walter Roth Museum of Anthropology.

William A. Dupont
William A. Dupont, FAIA, NCARB, is the San Antonio Conservation Society Endowed Professor at The University of Texas at San Antonio, and Directs the Center for Cultural Sustainability engaged in research, design, documentation and planning projects about cultural heritage continuity of places. Professor Dupont teaches advanced design studio for architecture students and graduate seminars concerning historic preservation. He established the Graduate Certificate in Historic Preservation in 2008 and is responsible for the historic preservation component of the College of Architecture Construction and Planning. His research projects convene faculty and students for the benefit of people and their communities. Professor Dupont's professional experience includes three decades of work on historic preservation in private practice, government, non-profit sector and academia. Prior to joining UTSA he was Chief Architect of the National Trust for Historic Preservation, and still assists the National Trust (as well as the Fimco Vigia...
Iwokrama, Consultant for QFA Hamburg, Director at the EPA, and today Commissioner at the Protected Areas Commission (since July 2012).

Donald Hankey
Donald Hankey has worked as directing or specialist conservation planner and architect in China, Bangladesh, Indonesia, India, Pakistan, the Middle East, North Africa, the Caribbean and South America since 1968. He founded in 1973 the multi-disciplinary Group (GHK) specialized in cultural resource management, including architects, planners, engineers, economists, sociologists, as well as management, training and research specialists. Their work included urban planning, infrastructure upgrading, conservation of historic environments and tourism development in 30 countries. He has been a past president of ICOMOS-UK.

Lennox Julian Hernandez
Lennox Julian Hernandez, MGAPE, MGIA, graduated from the University of Guyana with a Bachelor of Architecture in 1976, and the Postgraduate Diploma in Education in 1978. In 1982, he graduated with a Master of Philosophy (Architecture) from the University of Newcastle-upon-Tyne, UK, and in 1990, he was awarded a Fellowship to the Institute of Advanced Architectural Studies (IoAAS) University of York, for study and research on the conservation of historic buildings. In 1994, he studied Architectural Preservation for the Greater Caribbean at the College of Architecture, University of Florida, USA. Mr. Hernandez joined the University of Guyana in 1972 and is presently Senior Lecturer in Architecture; taking a three-year (2000-2003) hiatus to teach at the Department of Architecture, National University of Science and Technology (NUST) Bulawayo, Zimbabwe. He has written on, and given public lectures, on energy conservation in architecture, social housing, architectural education,
architectural conservation, Guyanese historic architecture, environmental health training, and the postage stamps of Guyana. Mr. Hernandez also has experience in architectural practice and as technical consultant to local and regional (Caribbean) institutions. He is currently Chairman of the National Trust of Guyana.

Clarence Antony Nigel Hughes
C.A. Nigel Hughes read law at University College London, where he graduated with both his first and second degrees, LL.B. (Hons) (1985) and L.L.M (1986). After completing his Master's Mr. Hughes successfully attended the Council of Legal Education in London. He was admitted to the Bar in the United Kingdom in 1987 as a member of the Inner Temple. In 1988 Mr. Hughes returned home to Guyana and was admitted to the local Bar. He joined the firm of Hughes Fields & Stoby where he subsequently became a partner. He is a former President of the Guyana Bar Association, during which tenure the Guyana Bar commenced an ambitious program of Annual Law Conferences at which several prominent overseas academics attended and presented. Mr. Hughes is also a former Chairman of the Guyana Book Foundation, a non-profit organization dedicated to enhancing the educational opportunities available to youth in Guyana. He has served on Chancellor Bernard's Criminal Law Reform Committee as well as the Chancellor's Rules Committee. Mr. Hughes was a Lecturer at the University of the West Indies Post-Graduate Executive Master's programme. He was appointed Convenor of the Special Committee on Constitutional Law by the Prime Minister and was tasked with making recommendations for constitutional Reform in Guyana. The Committee successfully submitted its report to the Prime Minister. He has drafted legislation which has been submitted to the National Assembly as well as prepared the legal and regulatory framework for Catch and Release Fishing in Guyana. Mr. Hughes has also acted as a Consultant to the Inter-American Development Bank.

Morris Hylton III
Morris (Marty) Hylton III is Director of Historic Preservation and Associate Scholar at the University of Florida's College of Design, Construction and Planning where his research focuses on solutions for saving endangered heritage and preserving sites of the recent past, particularly postwar modern architecture and resources. As part of his duties at University of Florida, Marty oversees the Center for World Heritage Research and Stewardship and its Envision Heritage initiative dedicated to exploring how new and emerging technologies can be harnessed to help document, conserve, manage, and interpret historic places. He also directs the University of Florida's Preservation Institute Nantucket, the nation's oldest, hands-on field school dedicated to historic preservation. Prior to his appointment at University of Florida, Marty held the position of Initiatives Manager for the World Monuments Fund, where he directed the Robert W. Wilson Challenge to Conserve our Heritage that helped place some 100 million dollars to help save endangered sites across the globe. While at WMF, Marty helped develop and implement multifaceted initiatives to address issues impacting international cultural heritage conservation, including the Modernism at Risk program aimed at conserving heritage sites affiliated with the modern movement in architecture and design. Marty is currently President of the Bowes House Historical Society of Flushing, New York, President of Gainesville Modern, and a member of the Florida Trust for Historic Preservation Board of Trustees.

Liam O'Hanlon
Liam O'Hanlon, PE, is a Principal at RSE Associates, Inc., a structural engineering firm with offices in the USA and UK. Prior to joining RSE Associates, Mr. O'Hanlon had a private practice for 9 years following 17 years at Arup as Associate Principal. He has been practicing structural engineering for more than 30 years. Mr. O'Hanlon has been
responsible for the engineering of a broad array of historic structures throughout the United States and the Caribbean. The buildings and bridges range from 17th century farmhouse museums to a collection of 1950's Frank Lloyd Wright buildings in Florida. Mr. O'Hanlon has engineered the restoration of numerous heavy-timber frame buildings including 19th century churches and farm buildings, early 20th century factory buildings and an 18th Century Chinese merchant's house. He also engineered the heavy timber design of a new building for Lyndhurst, a National Trust property. His current historic preservation projects include several early 20th century churches in New York City, 19th century glasshouses in Michigan and Pennsylvania and the stabilization of a heavy timber roof for a 19th Century church in Brooklyn, NY. He is a member of numerous professional organizations including the National Trust for Historic Preservation and the Association for Preservation Technology.

Nirvana S. Persaud

Nirvana S. Persaud graduated from the University of Guyana with a Bachelor of Arts Degree in History in 2002 and a Post Graduate Diploma in International Studies in 2004. In 2006 she was awarded a UNESCO Fellowship to pursue research in Heritage Conservation Management which she did at the University of Victoria, British Columbia, Canada. She also completed a Professional Specialization Certificate in Heritage Conservation Planning programme in 2007 and a Diploma in Cultural Resource Management in 2008 both from the University of Victoria, Canada. In 2010 she completed a Master's programme in World Heritage Management from the University of Turin Italy. She has also received professional training from UNESCO and University of the Netherlands Antilles in world heritage management. She is also trained in tour guiding. Ms. Persaud joined the National Trust of Guyana in 2003 as a Researcher. She now serves as the first Chief Executive Officer, a post held since 2010. Her interests are heritage preservation, management, public awareness and education. She has initiated several new projects for the Trust including its Heritage Magazine, Children's Heritage Awareness Programme and the Georgetown International Heritage Conference among others. She is a member of ICOMOS and the Guyana Heritage Society. Under her stewardship the Trust has gained international recognition for its work including winning the 2013 Heritage Protection Award from Caribbean Tourism Organisation, winning an International Green Apple Award for the Built Environment and Architectural Heritage 2016 from Green Organisation UK and the enlistment of City Hall on the World Monuments Fund Watch List (USA) for 2014-2016, the first such listing for Guyana. She is currently the National Focal Point for world heritage matters in Guyana.

Eduardo Rojas

Eduardo Rojas is an independent consultant and a lecturer on historic preservation at the University of Pennsylvania, USA. He was the Principal Specialist in Urban Development at the Inter-American Development Bank. He holds a degree in Architecture from the Catholic University of Chile, an M.Phil. in Urban and Regional Planning from the University of Edinburgh, UK; an MBA from Johns Hopkins University in the USA; and is Doctor of Urbanism from the Universidade Lusolana in Portugal.

Frank Sanchis

Frank Sanchis joined World Monuments Fund in 2010 as Director of U.S. Programs. He has significant experience in architecture, preservation, and planning and holds a B.A. in architecture from Pratt Institute and an M.S. in historic preservation from Columbia University. Most recently, he has served as Senior Advisor to the Municipal Art Society. Prior to his work at the Municipal Art Society, he
served as Vice President for Stewardship of Historic Sites for the National Trust for Historic Preservation. Mr. Sanchis was also Executive Director of the New York City Landmarks Preservation Commission. He is the author of "American Architecture: Westchester County, New York," illustrated largely with his own photographs. Mr. Sanchis currently serves on the board of the Catskill Center for Conservation and Development.

Allyson Stoll
Allyson Stoll obtained a PhD in City and Regional Planning from Cornell University in 2011. She holds a Master's degree in Conservation from Universidad Nacional Pedro Henriquez Ureña (Dominican Republic), and a Bachelor of Arts in History from the University of Guyana. Dr. Stoll's current research and teaching interests center on finding innovative responses to environmental and natural resource management issues in Guyana and the wider Caribbean, primarily using Geographic Information Systems (GIS) and Remote Sensing (RS) techniques that are grounded in participatory approaches and methods. Since 2014, she has taught courses on Geographic Information Systems (GIS) for Land Use Planning and Environmental Management, Spatial Issues in the Caribbean and Latin America, and Research Methods at the University of Guyana. Dr. Stoll is the current Chair of the Board of Directors of the Environmental Protection Agency, and member of the Iwokrama Review Committee, the Guyana Heritage Society and the GIS Collective.