A Brief Study Of The Development Of Falmouth Within The Context Of The Cruise Ship Pier

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Location of Falmouth, Jamaica
Falmouth: Creating a Sustainable Product

The historic town of Falmouth located on Jamaica’s North Coast presents an exciting case study of the juggle between conservation, as represented by the environmental management according to the mandate of the Natural Resources Conservation Authority and the heritage protection mandate of the Jamaica National Heritage Trust, and development as represented by the need for social and economic development and effective physical planning through the Local Planning Authority and the Town and Country Planning Authority, the development of the tourism product and the requirement for proper infrastructure to support these imperatives. This game of juggling takes place against the backdrop of planning and urban development agencies seeking to create a framework within which this juggling can take place safely, at least for now.
Historical Significance of Falmouth

The town of Falmouth was declared a Protected National Heritage by the Jamaica National Heritage Trust in 1996. The significance of the town lies not only in its architectural details of Georgian style but in its historical development; its sacred harbour that brought many an enslaved African to our shores; its grid layout; its social and physical infrastructure.

This is the key to Falmouth’s historic significance.
Falmouth

- Founded by Thomas Reid in 1769. In 1774, Edward Barrett, laid out what is now the Historic District.
- Became capital of Trelawny Parish in 1790
- Contains largest collection of intact Georgian period buildings in the Caribbean
- Established running water to homes before New York City.
- Declared a National Monument in 1996
FALMOUTH: A VIEW THROUGH TIME
1844 Lithograph
Historic District of Falmouth

By Adolphe Duperly
1844 Lithograph
Water Square Falmouth

By Adolphe Duperly
1844 Lithograph
Market Street

By Adolphe Duperly
Market Street - Today
The town of Falmouth was a bustling city 150 years ago in the height of the sugar and rum trade. Our job was to ensure that the 200 or more historic buildings that remained would be protected and we could integrate the new port with the existing town and its residents. My personal agenda was to make the town and its people a central part of the concept; thus embracing the port as their own.

Hugh Darley's Blog (Ideas Group):, http://hughdarley.com/page/2/
Creating a New Tourism Product: The Socio Economic Component

We recognized early on that the Port of Jamaica’s plans were not aligned with the socio-economic impact that the project would have on the community. I knew it would be so important for us to try to help the Jamaican community understand the positive impact of the port. Jamaicans really need to be able to embrace concepts like this. They often see foreign investment coming but in the past they have not improved the local community and the local economy. We had to come up with a concept that would do that. We wanted them to know that the port would be part of their city and not an all-inclusive resort. Hugh Darley's Blog, (Ideas Group): http://hughdarley.com/page/2/
Once we understood the socio-economic impact we had to look at the environmental impact. A large Environmental Impact Assessment was underway that proved the science of the bay was intact and the development of the port would not adversely impact it. We knew that the Martha Brae River and the bioluminescence of Glistening Waters had to be preserved. We conducted a town hall meeting with over 400 people attending and we were able to show the effort that we had gone to, proving to many of the locals that were concerned that we’d done our homework. Hugh Darley’s Blog (Ideas Group): http://hughdarley.com/page/2/
Environmental Sustainability

Potential Issues

- Relocation of over 140,000 live corals
- Impact on one of the last relatively intact and healthy reefs in Jamaica
- Change of water chemistry and wave regime within the bioluminescent Oyster Bay
- Loss of shoreline protection
Elements of Sustainable Tourism

The World Tourism Organization defines sustainable tourism as: *tourism which leads to management of all resources in such a way that economic, social and aesthetic needs can be filled while maintaining cultural integrity, essentials ecological processes, biological diversity and life support systems.*”

http://www.tanzaniagateway.org/docs/Sustainable_tourism_development_%20principles_for_planning_management.pdf
Sustainable Tourism

- Economic sustainability - that is profitable in both the immediate and long term
- Ecological sustainability - development that is compatible with the maintenance of essential ecological processes, biological diversity and biological resources
- Cultural sustainability - increase people's control over their lives and is compatible with the culture and values of those affected and strengthens the community identity
Sustainable Tourism

- Local sustainability - that is designed to benefit local communities and generate/retain income in those communities

Does Falmouth qualify as a sustainable tourism destination?
The Challenges

- Cruise ships often require dredged harbours
- Dredging has its own environmental harmful effects
- Coral reef replanting is not always the best option or alternative
- Economic development of Falmouth within the context of its heritage potential requires benefits to accrue to the residents of Falmouth
- Heritage tourism requires that residents have access to the heritage resource
- The retention of historic structures is paramount, this is the unique selling point for Falmouth
- The product must recognize the social and economic dynamics of Falmouth and make provisions for them
Background

The Port Authority of Jamaica applied for Permits and Licences for a Cruise Ship Pier in April 2007. Approvals were granted in January 2008 for the construction of a Cruise Ship Terminal and Finger Pier in the Falmouth Harbour. The facility was being designed to accommodate the new Royal Caribbean Oasis Class Cruise ship scheduled for delivery in early 2010.

This ship has an overall length of 360m, a draught of 9.1m, a height of 65 m above the waterline, a displacement of 100,000 tons, and a passenger capacity of 5400-6400 (double occupancy) and crew of 2500 persons.

From inception the “Design and Build” concept was pursued by the PAJ.

Preliminary designs were used to assess the impact of the project. It was expected that amendments to the various Licences and Permits Issued would have been necessary once detailed plans were received.
Proposed project and Approvals granted January 2008

- Environmental Permit
  - Port & Harbour Development
  - An Environmental Permit modification, clearance and reclamation of 40 hectares of wetlands

- Beach licences
  - L3018A: to dredge 4,500,000 m³ of material
  - L3018C: to construct 1,300 metres of coastline revetment works
  - L3018B: to reclaim an area of coastline using 1.3 million m³ of material

- Outline Planning for the cruise ship terminal
  2007-07007-PA00001
Redesigned Project and Permits and Licences Required

- Amend dredging licence from 4.5 to 1.5 million meter cubed
- Amend licence for coastal revetment works from approximately 1,300m – 2,300m
- Amend permit to construct Port and Harbour development
- Withdraw licence for land reclamation and new beach licences for
  - approximately 2.5km of sheet piles
  - the reclamation of 8.4 hectares of land extending a maximum 400m offshore [17 acres for the wharf] using approximately 800,000 m³ of dredging material
Proposed Dredged Area
Proposed Design
Heritage Restoration Works

The next series of slides show before and after photos of some of the restoration projects undertaken in Falmouth.
Old Baptist Manse, ca. 1798 (Restored by: Falmouth Heritage Renewal)

Before Restoration

Original Built as Masonic Temple in 1798 and later sold to the Baptist Church.

Today

FHR’s Training Centre is housed in the newly restored building. A modern, well equipped, woodworking shop is located on the first floor and the second floor has accommodations for up to 27 students and staff.
27 Lower Harbour Street
(Restored by: Falmouth Heritage Renewal)
31 Duke Street, ca. 1800-1840
(Restored by: Falmouth Heritage Renewal)
7 Queen Street, ca. 1800-1830
(Restored by: Falmouth Heritage Renewal)
40 Cornwall Street
(Restored by: Falmouth Heritage Renewal)
Falmouth Post Office Building, ca. 1810

Before Restoration

After Restoration

Originally built as a store (downstairs)/residence (upstairs).
Falmouth Court House Before & After Façade Restoration
(Restored by: Falmouth Heritage Renewal)
Jewish Cemetery, ca. 1780
The Persian Water Wheel located on the Martha Brae River that provided water to Water Square in Falmouth. It was constructed in 1798 thus allowing Falmouth to claim fresh water to homes before New York City.
Environmental Impact and Restoration Works

- **Relocation of Marine Fauna**
  - Corals >5cm should be relocated
  - All mobile fauna relocated before dredging
  - Sessile fauna above 5cm relocated

- **Relocation/Replanting of Seagrass**
  - 35.49 hectares covered by seagrass of which 16 hectares was deemed to be seagrass based on density
  - 54 hectares required as restitution

- **Replanting Restoration of Wetlands**
  - 40 hectares of disturbed wetlands has been impacted
  - 35 hectares of mangroves have been mandated to be done
The coral restitution which included artificial reef creation is currently complete.

Only phase one of seagrass has been completed – Phase two is about to begin.

The Wetland restoration has not yet started.
Change to bathymetry

Existing Situation

After Dredging
Work in Progress
Shoreline Changes

Shoreline before Pier development

Shoreline during Pier development
First ship to Dock
In The End...

The juggler is still juggling, many balls have fallen, and there are some more that may suffer the same fate ...
Balance Achieved?

- The development of the cruise facility is still ongoing.
- The integration with the town is still "being done".
- The restoration of the environment is still being done.
- The development plan for Falmouth is still being done.
References

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