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Promoting cultural experiences through responsive architecture

Shabonni Olivia Elkanah

University of South Florida

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Promoting Cultural Experiences
Through Responsive Architecture

by
Shabonni Olivia Elkanah

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Architecture
School of Architecture and Community Design
College of The Arts
University of South Florida

Major Professor: Trent Green, M. Arch.
Shannon Bassett, M. Arch.
Stanley Russell, M. Arch.

Date of Approval
November 21, 2008

Keywords: St. Kitts, Interaction, Caribbean, Heritage, Culture, Carnival,
Masqueraders, Kinetic Architecture, Performance Architecture, Architourism

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Celebrating a legacy imprinted upon our hearts...

...for mama, my great grandmother Beryl Caesar, for sharing with me treasures of our culture and satisfying an inquisitive young girl’s thirst for ‘old time’ stories, for my grandmother Doreen Brookes, for introducing me to Carnival despite of my youthful initial timidity to embrace our heritage and traditions, and for you mommy, Iris Brookes, for sharing with me the lives of the women who came before us, their memories will forever be in our hearts and minds as they passed down to us a culture rich and immense, one that we are privileged to experience.
Special thanks to Trent Green, thesis chair and my committee members Shannon Bassett and Stanley Russell. I would also like to thank each faculty member of the School of Architecture and Community Design who have inspired me to think critically and develop the necessary skills needed in the architectural environment. This thesis would not be as valuable if not for the assistance of Mr. Randolph Hamilton of the St. Kitts Tourism Authority, Mrs. Jackie Armory and the staff at the St. Kitts Heritage Society, and for all those who shared their experiences of the culture of St. Kitts.
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iv
Dance, costume, and music are all reflective of a heritage that has
been intact over three hundred years. The street activities during
carnival season on the island of St. Kitts can be described as
dynamic excitement between the onlookers, the Masquerades,
a local folklore group, and other carnival players. The
interactive play amongst group members of the Masqueraders
is one that tells a story of the colonization and perseverance
of a nation influenced by Indian, European and African past.
There is often, however a disconnection between an outsider,
‘the audience’, and the culture of the island. Only when the
interactive play amongst the players is disseminated through-
out the audience, inducing a response to embrace the culture
does an outsider gains a better understanding of the culture.
By expressing this interactive performance of the Masquerades
through responsive architecture the stage can be set where the
outsider can become submerged in a full cultural experience.

In 2003 the Parsons School of Design succeeded in creating
several interactive wall systems to monitor social behavior of
passersby by creating movable walls that revealed seating ar-
eas during high traffic periods. In the marketing world “interac-
tive wall(s)” informs consumers, workers and potential clients
of information on a particular product. Although successful
within their own realms, these wall systems lack the ability to
meet individual needs based on a particular cultural region.

Analyzing the Masqueraders and conducting interviews will
be of importance to this thesis research. Once information has
been collected and compared responsive systems will be de-
signed and tested. Frequent comparisons will be made with the
investigations carried out by Massachusetts Institute of Tech-
nology’s Kinetic Design Group and Parsons School of Design.

Responsive architecture can be used as modern day folklore,
as in story telling, to conjure up the cultural spirit of a place,
hibit architectural aesthetics while offering an outsider an
authentic and spectacular interactive experience. The results
of this investigation will be geared towards improving human
experiences on cultural levels.

v
The following definitions are given to the terms below as to best describe their use throughout this thesis research.

Responsive Architecture: Architecture that imitates and reacts to its surroundings. It suggests that the architecture is always in a state of constant change, as in a play or performance.

Performance: is the presentation of the culture to an audience which also includes participation.

Actors – someone who presents or performs their culture to an audience.

Node - a building or place that is of great historic or cultural significance.
Introduction: Come Dance With Me.

Come dance with me.
Rhythm, beat, note,
Step, twist, sway
Jump, leap, jolt
Over 300 years, tracing steps of an ancestral worship
lost yet still remembered
Rhythmic steps in sync with the Big Drum varying with
movements influenced by foot prints of European
colonization
Boom, 1, 2, 3, 4
Come dance with me
Forward, 1, 2, 3, 4
Take my hand, and around we go
1, 2, 3, 4, return to your position
A beckoning call as the red thunder axe exults through
the sky
Chaotic movement regenerating, beating the ground as
souls unite with a heritage,
A heritage resilient enough that defies foreign attacks
A heritage that now welcomes in foreign friends
....come dance with me, 1, 2, 3, and 4.

Fig. 1. Masquerade Dance
History

One of the first English speaking colonies and the first French permanent colony, the culture of St. Kitts is one that exhibits both richness of heritage passed down from generation to generation as well as immense history in its natural and built environment. Since its first settlement by the Arawak and Carib Indians, the wealth of the soil was much sought after; St. Kitts was first named Liamuiga, which means fertile soil or fertile land by the Indians. That name still exits within the local population referring to the island’s central volcanic mountain. Christopher Columbus arrived in 1493 on the island; however colonization proceeded in 1623 by Sir Thomas Warner. The French arrival in 1625 help to create a joint force between the British and French that led to the massacre of the Carib Indians in 1626, the site is historically know as Bloody Point. As the islands grew prosperous tensions and intermittent war broke out between the British and French, the island was seized by either group at various times from 1664 to 1782 when the British claimed final siege of the island by grand defense against the French at Brimstone Hill National Fortress. As part of the Treaty of Versailles the British was 1783.

Though initial success was achieved through the cultivation of tobacco for export, the island suffered losses due to competition from Virginia which led to the cultivation of sugar cane in 1640. As needed laborers were in high demand large quantities of African slaves were brought to the island. St. Kitts had become the richest British colony by 1776. The abolition of slavery within the British Empire occurred in 1834.

What is Culture?

“Culture is a bag of tools given to help a person survive in his environment.” Mrs. Jackie Armony, St. Kitts Heritage Society

With it’s roots in West African practices and European influence the culture of St. Kitts is one that is captivating and vibrant. The island celebrates various festivals throughout the year including the St. Kitts National Carnival. The festivities participants are normal clothed with bright and colorful attire performing throughout the streets of the towns and villages. There is normally a play or story that surrounds each group that takes part in the events, mostly witty and stems from some past event that is usually fabricated.

The island has managed to retain much of it’s culture due to it’s people who have shared their experiences through local crafts, story telling and the competitive nature of various shows held throughout the island. In addition much of the culture is retained in the architecture around the island.
St. Kitts
Location - Caribbean
Geographic coordinates: 17 20 N, 62 45 W
Area - comparative: 1.5 times the size of Washington, DC
Population: 38,958 (July 2005 est.)
Country name: Federation of Saint Kitts and Nevis
The St. Kitts National Carnival is a jubilant cultural experience that begins on Boxing Day and concludes a few days after New Years Day. The excitement that fills the street is one that is both engaging to the locals and visitors alike. From street decoration to festive attire and costumes, the urban context of Basseterre is transformed into a festive bowl of varying cultural ingredients displayed through arts and craft, poetry, music, drama, and food. The radiant drama of the street can be felt through the rhythmic performances of the carnival participants. Spectators congregate for miles along the street edges of Basseterre hoping to experience the rhythmic procession as the parade troupes moves from the camp grounds throughout the downtown area, dancing and celebrating the heritage of African and European influence.

Throughout the year the various parishes of St. Kitts also participate in their own festivals. These festivals celebrate the specific heritage of each parish and also leads to the climax of the National Carnival.
ST. KITTS’ ANNUAL FESTIVITIES

Fig. 6. Annual Festivals
Fig. 7. Carnival Players
The Masqueraders are a folklore dance group that originates more than 300 years from both African and European influence.

The Costume

- a shirt
- pants
- apron or mantle
- feathers (strong medium for attracting and communicating with the gods)
- ribbons
- handkerchiefs/scarves ("pieces of cloth" which were attached to their attire by the Yoruba people during funeral rites.)
- mirrors (represent "mirrors to the soul")
- tassels
- small bells (The bells represent the cowries shells worn on the garments of Shango priests)
- thunder axe (visual symbol of Shango’s power)

The Dances

1. The Quadrille - 17th-Century dance stemming from France and is usually the first dance which is performed couples. The pace and structure of this dance is slow and is defined by the elegant movement of each dancer.

2. The Fine - is the second dance is faster than the Quadrille and is a play between tow dancers. The dancers move skillfully towards each other on one foot meeting in the center of a circle, and then perform an African fertility dance and returns to their position.

3. The Wild Mass – is the chaotic movement of the Masqueraders as each dancer breaks out into their own style of dancing and through their tomahawks into the sky, hoping to stir up the excitement of observers.

4. The Jig – is another dance that includes the display of maneuvering the tomahawk. The dance includes the movement of the right foot hooked behind the left foot repeated in a frontward or backward movement.

5. Other dances include the “Boillola” and the “Waltz”
Fig. 8. Maquerader
Fig. 9. Maqueraders Movement
Fig. 9-a. Maqueraders Movement
Within human societies architecture has been used to provide shelter, protection and used as an enclosure. It is a ‘tool’ that is used to trace the social activities of a society’s past, frames its present and influences its future. For visitors to a region the architecture can unravel historical information. The architecture in most cases however only acts as stagnant object for observation, and not as an interactive element of the culture.

“Folk Architecture” – refers to houses which are designed and constructed primarily by the people who reside in them.

Assumption for any vernacular: house form represents a compromise between a number of distinct forces, including the environment, materials, technology, and the requirements of the social system. The central determinant of house form is found in an abstract geometrical aesthetic shared by the bearers of the vernacular tradition.

Huts: First Building Types

- temporary
- supports of forked sticks
- wattle or palmetto – thatched walls and thatched roofs
- similar to the indigenous Arawak habitations, however more poorer and flimsy
- shacks that could be erected in a single day

African Influence

- Kwa-Group and Bantu speakers captured from the coast of central West Africa
- indigenous house type is rectangular
- gabled roofed buildings
- wide variety of materials
- combined in various ways to make up more complex house units

Fig. 10. Rural Huts
The Chattel House

The Chattel House is the name given to a small wooden moveable house.

Vernacular Characteristics

- Perishable and unpretentious
- Reconstituted – resheathed and reroofed every forty years
- Non durable

Fig. 11. The Chattel House

Fig. 12. Board House

Fig. 13. Concrete House

Fig. 14. Building Materials
Port Zante, the site chosen for this thesis investigation is located on the edge of the city of Basseterre along the Bay Road. The area is the point of disembarkation to the city for many tourist visiting via cruise ships. The location was decided upon after conducting research amongst other sites. Once a sea shore, the area is a landfill development carried out by the local government to facilitate the docking of large ships visiting the island. Currently the building types located on Port Zante are commercial, small jewelry and duty free tourist goods in addition to a few restaurant.

The advantage of accessibility and proximity to historic and the urban life of the town was favorable for site selection. At the North -west corner of the site the sits the St. Kitts National Museum and just in front of the museum marks the original shoreline.

The Problem

The site analysis conducted showed that the main axis through the port area lead the visitor through the Pelican Mall, instead of adopting a more historical route that would connect the tourist to the city.

Hypothesis

A procession that links cultural activities would introduce and reinstate in the minds of the visitor the significance of the island and thus connecting them to city.
Fig. 16. Downtown Basseterre
Fig. 17. Vehicular Access
Fig. 18. Proposed Historic Basseterre: Diagram showing the historic buildings in downtown Basseterre. (Information updated from previous studies done by the St. Kitts Heritage Society.)
Fig. 19. Views
Fig. 20. Noise

- Sound due to high pedestrian traffic during cruise hours, during the summer - Saturdays
- Sound due to cruise ship activity
- Sound due to craft vendors and pedestrians
- Vehicular and pedestrian sounds into the site
Access: Showing pedestrian and vehicular circulation (the majority of vehicular access in taxi cabs and vans)

Fig. 21. Circulation
Fig. 22. Climate, July 2008
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<th>Sunset</th>
<th>Length</th>
<th>Change</th>
<th>Dawn</th>
<th>Dusk</th>
<th>Length</th>
<th>Change</th>
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<td>18:49</td>
<td>13:10</td>
<td>00:00 equal length</td>
<td>05:15</td>
<td>19:13</td>
<td>13:58</td>
<td>00:00 equal length</td>
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Fig. 23. Day Changes, July 2008
Fig. 24. Day Changes, July 2008
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Fig. 25. Solar Energy and Surface Meteorology
Fig. 26. Port Zante Commercial Area

Fig. 26-a. Port Zante Commercial Area
Fig. 27. St. Kitts National Museum

Fig. 28. Port Zante Cruise Ship Terminal
In 2002 the Temple Hoyne Buell Center for the Study of American Architecture at Columbia University organized a conference and exhibition. What manifested was Architourism: Architecture as a Destination for Tourism. The conference and exhibition focused on architecture having “its own niche in the tourist industry.” In examining the importance of architourism it is important to note what has been termed the “Bilbao effect.” In 1997 following the completion of Frank Gehry’s Guggenheim Museum in Bilbao, Spain the regenerating of a whole city was felt as the new museum caught the attention of local and foreign tourist to visit the city and increased currency flow. Joan Ockman and Solomon Frausto, the editors of 2005’s Architourism, studied buildings that were both permanent and temporary structures and measured their effectiveness in improving tourist’s visit to a place. Architourism suggest that architecture becomes a catalyst for the construction of tourist experience. However, in most cases the new built structure acts as an iconic typology that may not necessarily link a building to its cultural and regional background. Perhaps by adapting responsive architecture that is capable of communicating the richness of a place that the role of architourism would be further explored to achieving sensory satisfaction.
In order for the built environment to achieve interactive adaptability to the sensory expectations of the tourist it is fundamental in understanding how such interaction is made possible. The collaborative work of Michael A. Fox and Bryant P. Yeh of MIT Kinetic Design Group has made available insights into the area of Intelligent Kinetic Systems. Their research concludes that intelligent kinetic systems arise from “the isomorphic convergence of three key elements: structural engineering, sensor technology and adaptable architecture.” The combination of these three separate yet necessary elements yields vital architectural responsive possibilities that are vital to achieving architectural adaptability to the architourism realm. Structural engineering focuses on building structures that are lightweight, efficient and flexible for their particular use and form. Sensor technology acts as an embedded computational control mechanism which adapts and responds to changing needs. Adaptable architecture deals with space that is flexible to human activity. This flexibility can differ in nature from spatial reorganization, structural transformability, to programmatic and site conditions. Within intelligent kinetic systems exists architectural typologies. The first include embedded kinetic structures which suggest a fixed location in a larger architectural whole. The second is deployable kinetic structures which are transportable for construction and deconstruction in various locations. Thirdly, dynamic kinetic structures are independent of the architectural whole. They exist as various modular components, importantly for the purpose of this thesis investigation, as a wall system. An example of a responsive wall system that has been investigated is the Kinetic Wall by Mr. Yeh. This system acts as an enclosure that is both structure and envelope, both solid and plastic and can be a temporary structure or incorporated into a building. Through similar studies this thesis will explore the relationship of a responsive wall system in adapting to cultural experiences. (Fox and Yeh, 2008)
As responsive systems are continuing to make an impact on the urban space this case study investigates Low-Rez Hi Fi, an installation at 1110 Vermont Avenue in Washington DC. The project includes the renovation of the 1960s office building and the activation of the public space between the building’s lobby and the street edge. The significance of this project is the use of LED screens (Low-Rez) used to monitor the movement of the passersby and the use of touch sensitive stainless steel poles (Hi Fi) which plays back and relays musical notes when touched, creating a rhythmic field of interaction. Low-Rez Hi Fi adopts the technologies of computer programming and engineering to invite passersby through the stimulation of the senses of sight, touch and hearing to interact with the urban space.

Question:
What is the role of responsive systems in public spaces?

Hypothesis:
By considering carefully the urban settings, responsive systems can be used to transform and activate an otherwise monotonous space.

Fig. 29. Installation (Howeler + Yoon Architecture)
Project Performance:

As a passerby walks along the sidewalk along 1110 Vermont Avenue one is drawn into an interactive environment created by sound and light. The project developed by My Studio consists of two interactive systems; three LCD matrix informational screens (Low-Rez) and interactive stainless steel sound poles (Hi Fi).

Low Rez consists of digital images that are broadcast on full scale LED matrices in double-sided glass vitrines. The matrices comprises 10, 000 LED pixels suspended by tension wires. Each pixel can be remotely controlled, allowing information such as the buildings address to be displayed on the ‘screen.’ Although the LED matrices has a pixel pitch of 2.4 inches which displays a very low resolution image, the spaces between them and the transparency of the glass vitrines allows the capturing of silhouette of a passersby. The relationship between the inside lobby of the building with the urban space between the street is activated by placing the glass vitrines within the lobby and perpendicular to the building’s façade. Hi Fi comprises of a grid of touch sensitive sound poles that each emits varying musical notes. The poles are divided into segments that are separated by LED lights. Once one of the sound poles is touched the notes are relayed to another pole and then to the next, creating a continuous ‘field of sound’ that can be inhabited. Thus, the grid poles acts as a manmade forest within the urban space that invites the passerby to touch, view, and listen, perhaps for a moment, forgetting the outer environment around him/her.
Project Analysis:

Proximity and Location
The speculative office building, 1110 Vermont Avenue, is located near the downtown area of Washington DC. Thomas Circle, a historic traffic circle, is known to mark the boundary between the downtown section of 14th Street and the emerging uptown 14th Street neighborhood. In 2006 Thomas Circle underwent a $6 million restoration to include pedestrian crosswalks, new sidewalk, bicycle lanes and the extension of traffic from neighboring streets. The renovation helped to improve the urban space along Vermont Avenue, increasing both vehicular and pedestrian flow.

Fig. 31. Proximity
Space

The space created by the building structures on Vermont Avenue creates an urban man-made valley with trees aligned on the west side of the street. This opens opportunity for the placement of the touch sensitive poles to be placed along the same path of the trees causing a subtle interruption of pattern.
Scale

In contrast to the scale of the surrounding buildings the installation creates a world that is in grasp of human interaction.
Sensory

1. Sight

   The glass vitrines display digital images, involves both pattern making and scrolling, making it clear for passerby to both view the information and to monitor their own movement.

2. Touch

   The smoothness of the stainless steal poles invites pedestrian to touch, the same effect might not have been accomplished with a rough surface.

3. Sound

   The musical notes emitted once a pole is touched the sound is relayed to another pole and then to another creating a ‘call and answer pattern.’ This stimulates movement throughout the inhabitable space.

Fig. 34. Sensory Diagram (Howeler + Yoon Architecture)
Lessons Learned

The significant lessons derived from the case are perhaps not merely the placement of objects within the passerby’s path, but the ability to spark the inner curiosity of a sort of ‘found object’ along one’s path. This includes: (1) the interruption of path through subtle changes in a normal route; (2) interruption of thought, by placing responsive systems the passerby is invited to interact with the space and focuses his/her attention on the LCD screens or the poles; (3) interruption of journey, the passerby who is not accustomed to traveling along Vermont Ave. may experience the interaction differently than a person who is accustomed to that area; (4) play on patterns, the patterns created by the LCD screens and that of placement of the poles creates a rhythm of images and movement; (5) play of sound through touch stimulates an interaction that dissolves the noise created by vehicles and other unwanted noise; (6) play of light is used to create images through LCD lighting and also illuminates the sidewalk during the evenings; (7) creating a sense of identity by using responsive systems.

Fig. 35. Interaction (Howeler + Yoon Architecture)
As Athens prepared to host the 2004 Olympics the organizers ventured out on a task beyond the sports arena to one that linked together architecture and culture. What emerged was a program called ‘Catch the Light: Routes through Athens.’ The program’s goal was to introduce visitors to parts of Athens, past and present, that were beyond the Olympic grounds. ‘Catch the Light’ focused on the unique quality of light associated with Athens. As a result the purpose was to create interactive art installations that were to be placed along five walking routes throughout the city’s historical center. Out of the nine groups who were invited to participate in the competition it was J. Meejin Yoon’s White Light/White Noise that grabbed the attention of the organizers. Yoon’s proposal was to be part of the ‘Listen to Athens’ route, light as well as sound had to be incorporated into the design. Yoon along with her team of six young designers ventured out on their investigations by recording the sounds of the city. Yoon explained, “There are so many sounds in the city you hear unadulterated; I didn’t want to just record the city and play it back without filtering it in some way. “We wanted to achieve something that was poetic, quiet and powerful all at the same time” Yoon, 2004. The installation incorporated sounds at different frequencies. The location of the installation is at the plaza at Dionysiou Areopagitou Street, which is in view of the Acropolis, as well as the Ancient Theater of Dionysus. The installation comprises a 15-square-meter field of 4-foot-tall fiber optic ‘light stalks’
embedded in a 6-inch high wooden platform. The interactive sound and light field responds to pedestrian movement as they walk through it. The location of the installation is at the plaza at Dionysiou Areopagitou Street, which is in view of the Acropolis, as well as the Ancient Theater of Dionysus. The installation comprises a 15-square-meter field of 4-foot-tall fiber optic ‘light stalks’ embedded in a 6-inch high wooden platform. The interactive sound and light field responds to pedestrian movement as they walk through it.

As pedestrians enter into the fiber optic field their presence and movement are traced by each stalk unit, transmitting white light from LEDs and white noise from speakers below. If motion is detected, the white LED illumination grows brighter while the white noise increases in volume. Once motion is no longer detected, the light and sound fade into dimness and silence. Just as white light is made of the full spectrum of color, white noise contains every frequency within the range of hearing in equal amounts. The volume of white noise and the intensity of white light are controlled by a custom microprocessor designed by electronics engineer Matthew Reynolds (MIT SB ’98, M.Eng ‘99, PhD ‘03). Each stalk unit contains its own passive infrared sensor and microprocessor which uses a software differentiation algorithm to determine whether a person is passing by the stalk. The white noise made for the project is based on a physical phenomenon called Johnson noise, where noise arises from the thermal motions of electrons in a resistor carrying current in an electronic circuit. This field of white noise creates a unique sound-scape masking out the noises from the immediate context. (Haller, 2005) “White noise, like white light, is an aggregation, composed of all possible sounds, just as white light encompasses all possible colors,” says Yoon. “The gentle murmur of ‘White Noise/White Light’ forms a place of sonic refuge within the city” (Yoon, 2005).

Fig. 37. Greece Olympics (Howeler + Yoon Architecture)
The program attempts to link various activities within the cultural network of the island. By doing so the proposed building becomes a vital node that centralizes, repeats (performs) and then disperses heightened cultural experiences.

Concept:
The building is driven by the concept of procession and performance spaces.

Procession:
The route that the tourist takes from the cruise ship terminal to the city’s edge is one that hints of a cultural procession of the masqueraders. The route is transformed into a procession that is marked by festive installations along the path. Upon entering the site that is at the city’s edge the building also takes on the same processional movement in form as well as circulation on the ground floor.

Performance Spaces:
The performance spaces are multi-use convertible spaces that are used for civic functions. The main performance space: the central piazza that doubles as an amphitheatre is the focal point of the building. It is at this point both culture and the architectural drama of the building is held in balance.

The lightweight tubular steel structure is used to convert the spatial definition of the piazza according to the activities being held. It is a permanent structure that may be thought of as a convertible civic installation that can be draped and objects may be attached or hung from. The drama of the space can be changed depending on the different levels of translucency, color, and texture of the fabrics used to cover the steel structure. In addition, the play of shadows and natural light during different times of the day will affect the spatial atmosphere of the piazza.

Not only does the steel structure define the central piazza but it is also used as a processional element on the first floor that marks the main entrances of the lobbies of the Costume Gallery and the Artist Gallery. In this way the steel structure is extended into the main lobbies as a symbolic gesture that invites visitors to experience the building. It is a gesture that communicates the tactile interaction between actors and participants.

Other Performance Spaces
(Point out each of the performance spaces, axonometric, also show adjacent and location to each other)

1. Costume gallery workshop: The costume workshops are the core of the costume gallery. Costumes are essential to the festivals and shows held on the island, for this reason the costume workshop can be viewed from each floor. Visitors and students alike are able to learn about the intricate making of the costume used year round on the island.
2. The open square in front of the National Museum is an existing area that can be used as an informal performance space with the digital screen acting as the backdrop for various activities.

3. Performance space within the Artist Gallery is used for story telling and small informal dialogues between artists and visitors.

4. Vendor stalls captures the everyday life of the local artisans, and street vendors. The performance occurs between the vendors and their costumers and is a play that occurs throughout the urban fabric of the city.

5. Roof captures the performance of the elements upon the building and can be observed on the third floor of the costume gallery.

6. The performance stage on the seafront is used for formal and informal performances and for public gatherings.
GOALS AND OBJECTIVES

Goals and Objectives Primary:

- Promote and express the evolving culture of St. Kitts (folklore culture) through the use of Intelligent Kinetic Systems
- Invite the tourist to participate in the culture of St. Kitts
- Leave a lasting impression of the culture of St. Kitts on the tourist
- Create a regional and international identity
- Activate the urban edge of Port Zante and connect it to the city, Basseterre

Goals and Objectives Secondary:

- Linking cultural activities (community festivals) to the grand Carnival
- Establish a series of ‘nodes’ within a ‘cultural network’
- Encourage the passing of heritage to younger generations, by providing areas to learn and practice the folklore culture
- Diagrammatically – each festival held throughout various communities leads up to the Grand Carnival held in December – January
- The relationship between the tourist entrance to the island via cruise ships can be used to link the tourist to the culture by establishing a ‘cultural movement’ that begins at Port Zante and links to the ‘culture nodes’ throughout the island.
• Performance Space (Stage, Rehearsal, Storage)
• Artist Studio
• Artist Resident
• Artist Gallery
• Costume Workshop
• Costume Gallery
• Costume Storage
• Vendor Stalls / Market
• Restaurant
• Rest Rooms
• Administration
• Mechanical/Electrical/HVAC

Program (Zoning):

Private
- Artist Resident
- Administration
- Artist Studio (semi)
- Mechanical/Electrical /HVAC

Public
- Costume Gallery
- Artist Gallery
- Performance Space
- Costume Workshop
- Vendor Stalls / Market

- Restaurant
- Rest Rooms

Commercial
- Restaurant
- Vendor Stalls / Market

Residential
- Artist Resident

Educational
- Costume Workshop
- Artist Studio

Entertainment
- Performance Space
- Artist / Costume Gallery
Fig. 38. Programming
The vendor stalls are a unique part of the building’s program that incorporate the daily lives of the local vendors. The stalls are embedded kinetic structures that stems from the Chattel house architecture. The length of the vendor stalls are twice its width and they are easily assembled and disassemble to allow for easy transport along the carnival routes and to other locations around the island. Within the building the vendor stalls becomes apart of the performance stage as people move along the procession of the building’s ground circulation. The panels of the stalls are designed to have motion sensors which would adjust as people move in and out to the stalls. As this thesis is geared towards the development of the cultural center, the vendor stalls design is in theory and more investigation would have to be carried out to test the mechanical systems involved.

(The folding exercise carried out on the left was done to study the assembly of the vendor stalls as one piece of panel.)
Fig. 40. Vendor Stalls
Fig. 41. First Floor
Fig. 43. Third Floor
Fig. 45-b. Plaza Section
CHANGEABLE DOME SKIN

DOME STRUCTURE

ROOF

SECOND FLOOR PLATE

VENDOR STALLS

CLOSED VIEW

ENCLOSING ENVELOPE

PROCESSION THROUG BUILDING

AUDITORIUN STAGE

DIGITAL WALL

PLAZA / SQUARE PERFROMANCE SPACE

Fig. 47. Axonometric
Fig. 48. Performance Gradient
Fig. 49. Dome Fabric
Fig. 52. Perspective C
Fig. 56 Port Zante
Fig. 60. Perspective I
Fig. 62. Costume Gallery Entrance
Fig. 63. Physical Model

- Entrance From Cruise Terminal
- Central Plaza/Square
- Vendor Stalls
- Costume Gallery Façade
During an interview, Elizabeth Padjen of Architecture Boston stated, “It seems that there are two perceptions of the role of architecture in creating a destination: the architecture is itself the destination or the architecture provides a container for the people and activities that are the destination” Padjen 2005, 23. Ron Ostberg added that the non-spacial concepts are also important in creating a destination. “People can be drawn to a place because it has a series of wonderful events” Padjen 2005, 23. Events that are unique to a place add certain dynamics that makes a place authentic, especially one that harnesses civic imagination.

Throughout this thesis research the goal of connecting visitors to a destination was thorough and rewarding. In attempting to mimic the culture of a place through architecture there must be first an intricate and in depth understanding of the cultural heritage of that place. By studying the Masqueraders and other entities of the culture of St. Kitts this thesis was able to focus on some of the major events that takes place on the island, such as parish festivals and the National Carnival and thus create architecture that is intriguing to both locals and visitors.

The building that was birthed through this research is a cultural center which in itself is a cultural node acting as an installation within the carnival route and urban context of Basseterre.

Its role plays a significant part of the culture due to it’s responsive nature, it’s ability to change with the festive atmosphere of the city. This responsive quality is achieved through the use of the digital wall, which records and displays different parts of the city during various occasions. Also, the central dome structure of the plaza allows the transformation of that space to accommodate various activities such as pageants, shows, carnival events and a local market by draping or hanging objects from the structure. The vendor stalls acts as embedded kinetic structures that can be placed throughout the city as means to accommodate vendors and costumers along the carnival route.

The experience through the building attempts to capture the drama of the movement of the Masqueraders by taking the visitor through a rhythmic procession that connects various performance areas. It is a sensory, experience that introduces the visitor to the culture of the island as they move through the building and join in with the cultural procession of the city.
Elizabeth, Padjein, FAIA. “Creating Destinations: If you build it, they might come, if they’re not too busy.” Architecture Boston, July-August 2005.


