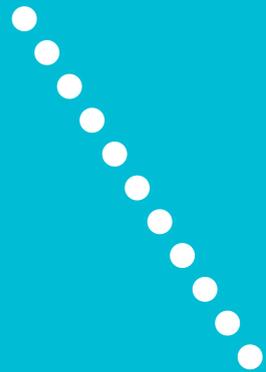
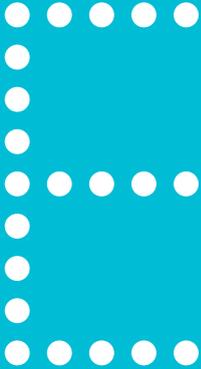


**A Sustainable Future
for Exuma**
Environmental Management,
Design, and Planning
Engagement Report



This report documents the first year of engagement of the three-year Sustainable Future for Exuma project.

Beginning with a Public Forum at the College of The Bahamas on 19 February 2013, the project team has engaged in significant events and everyday life over the course of a year of fieldwork, workshops, and educational exchange.

The forum, opened by the Deputy Prime Minister, offered a platform for setting the ambitions for the multi-year project. Town Hall Meetings were held in Exuma as a way of engaging with and listening to local communities, and better understanding current issues and future potentials.

The public forums were complemented by intense fieldwork in various communities including the Exuma Cays Land and Sea Park. Students and researchers participated in everyday life with local residents and tourists. The fieldwork is summarized within a set of index cards and an online platform currently being developed, which will eventually form part of the Exuma project's planning tools.

The project has offered Executive Education courses to government officials, and educators and the Exuma community. Courses were offered in George Town, Nassau, and Cambridge, MA. Scholarships have been awarded for Bahamians to participate in the GSD's Career Discovery programme, and educational outreach has been initiated with the College of The Bahamas.

This report is a documentation of some of the highlights of the first year of the project. Beginning with a transcript of the 19 February Public Forum, it contains summaries of meetings, courses, and fieldwork. The report is punctuated with a series of photo essays documenting the project's engagement with the government, the BNT, and life in Exuma.

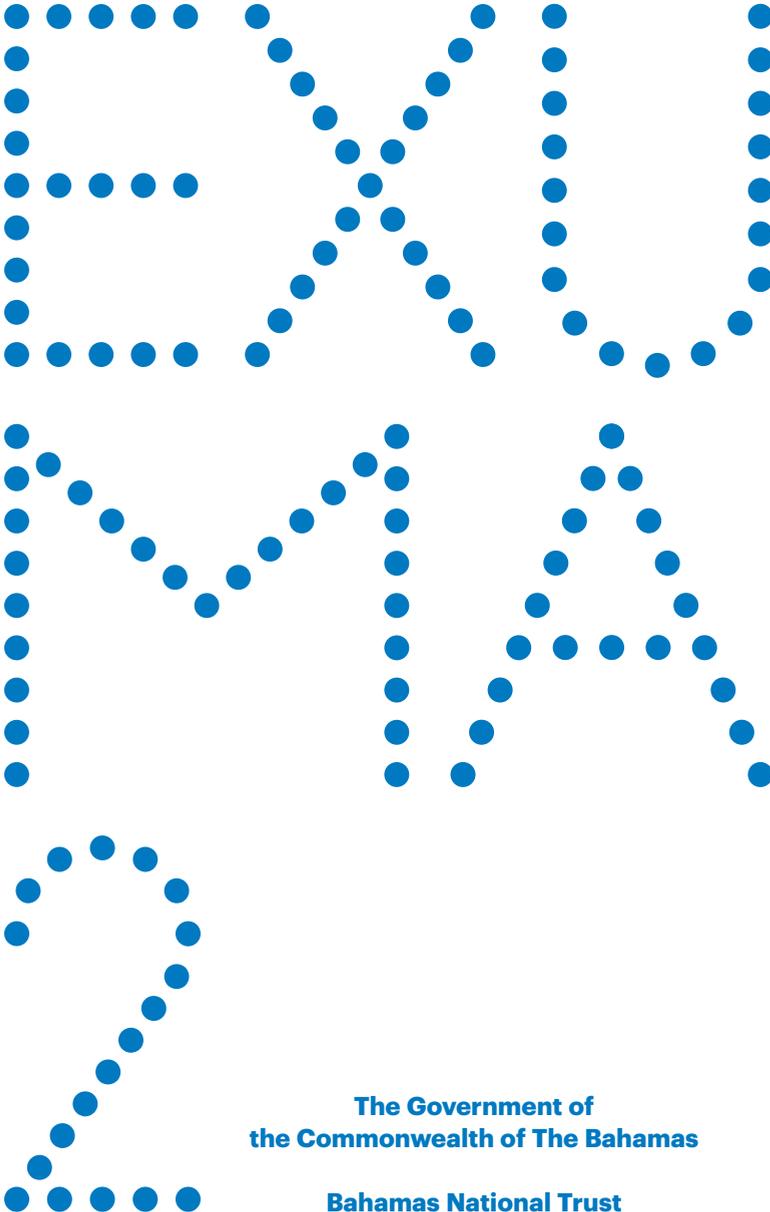


Bahamas National Trust



**Harvard University
Graduate School of Design**

**A Sustainable Future
for Exuma**
Environmental Management,
Design, and Planning
Engagement Report



**The Government of
the Commonwealth of The Bahamas**

Bahamas National Trust

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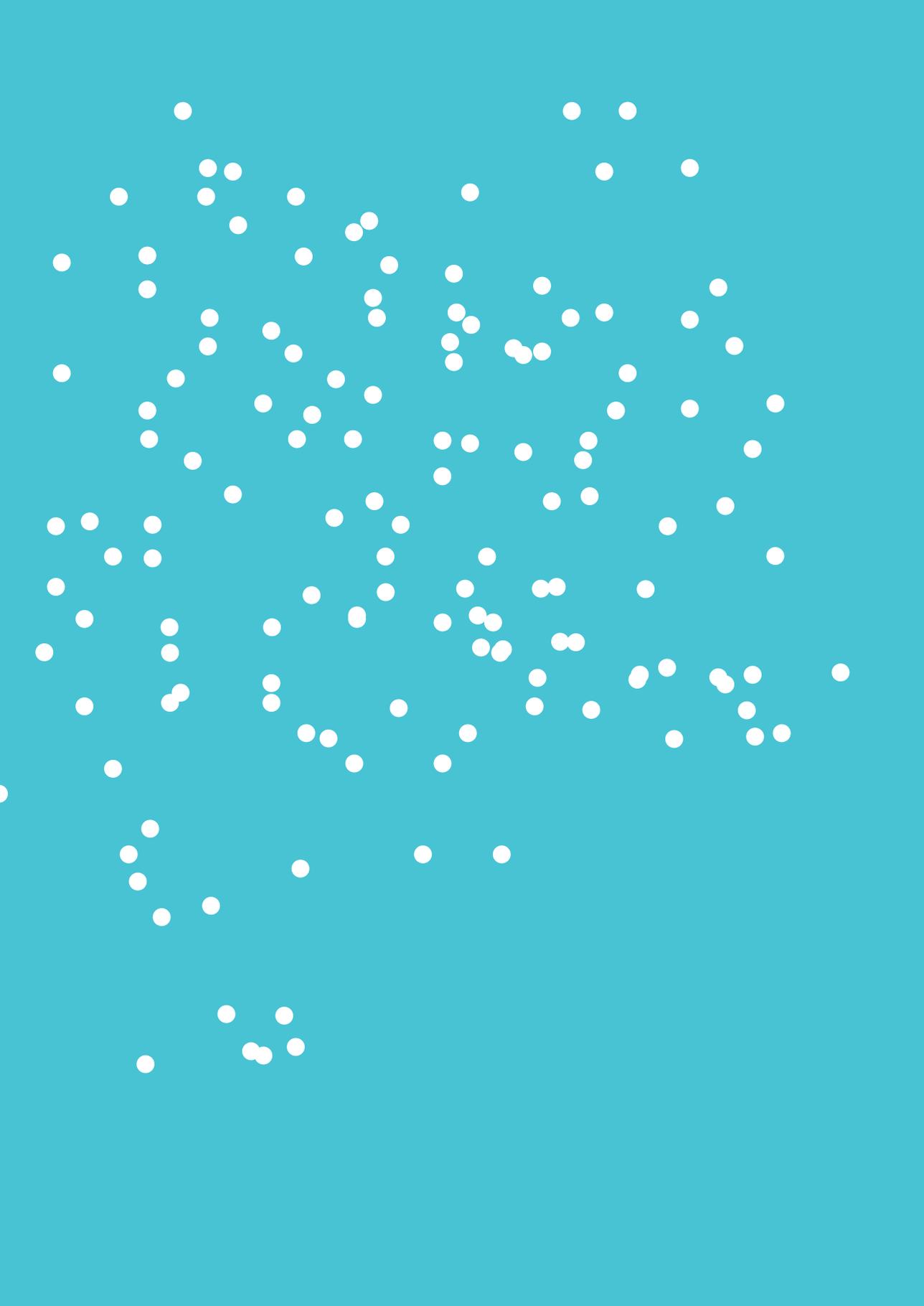
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I

Introduction

PROJECT OUTLINE

This multi-year ecological planning project is a collaboration among the Government of The Bahamas, the Bahamas National Trust, and Harvard University Graduate School of Design (GSD). The goal is to facilitate the design and management of a more sustainable future for the Exuma archipelago, and The Bahamas more generally.

The project has two parallel and mutually informing components: research and education. These components work to inform the development of proposals and interventions as well as the building of capabilities for local empowerment. An important part of the project are a series of Scholarships for the degree programmes as well as opportunities for Bahamians to engage in the summer Career Discovery Programme at the GSD. Furthermore, the project is integrated with the research and pedagogy of the GSD.

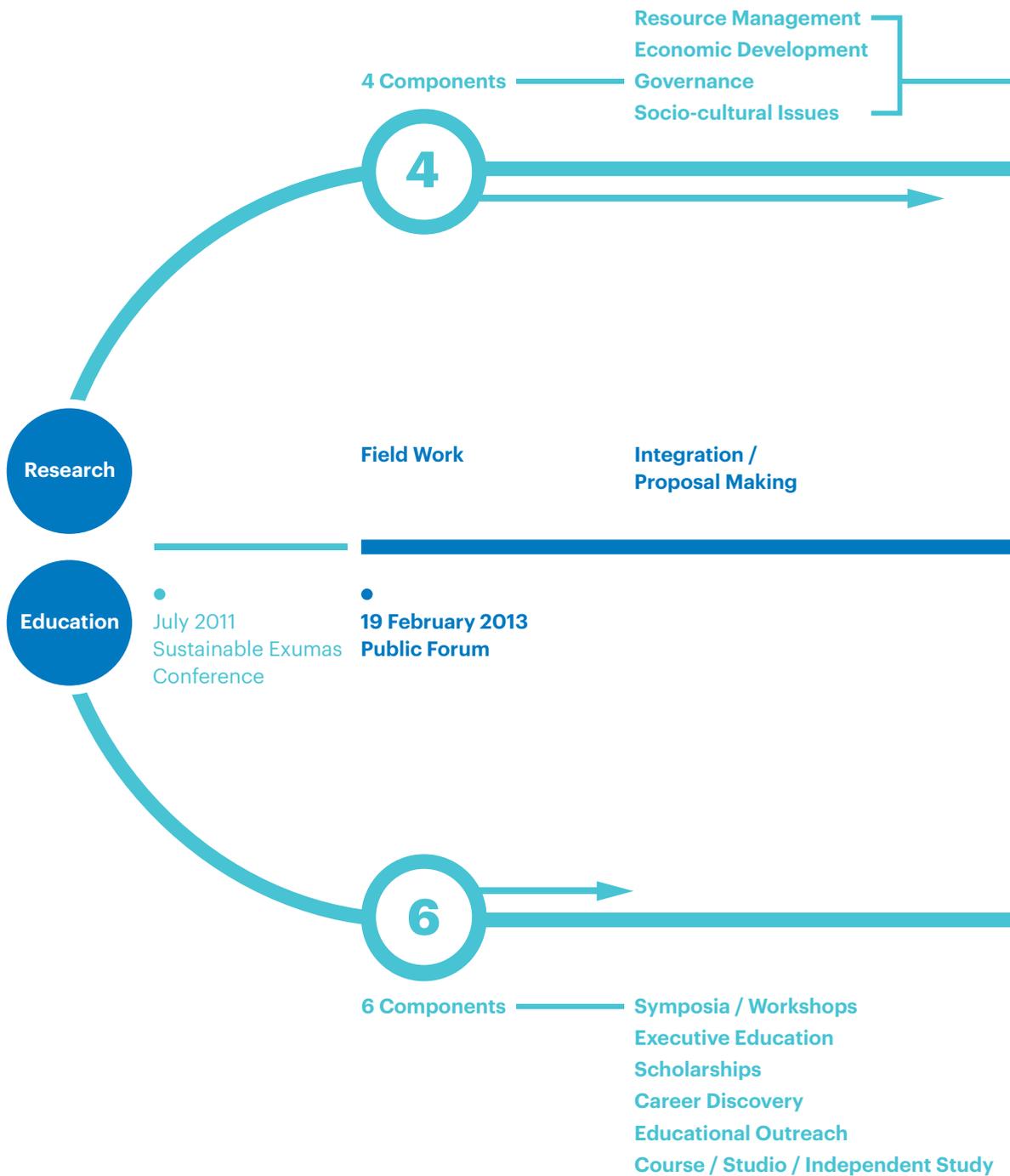
The project seeks to understand local issues through various forms of public engagement. Public forums, workshops, and conferences are part of the process, in addition to fieldwork that facilitates the connection of researchers with residents. The first year focuses on fieldwork including participation in daily routines that aim to create a better understanding of local issues particularly across Exuma and more generally across The Bahamas. The second year of the project will focus on proposal making, while the third year will focus on a plan for action and implementation.

Research

The project's research branches into four main parts: Resource Management, Economic Development, Governance, and Sociocultural Issues. These four components break into more specific subcomponents, including analysis of: Island Geology and Ecologies; Economy; Waste; Energy; Food; Water and Climate Factors; Existing Development Frameworks and Land-Use Guidelines. The project also identifies a series of case studies on ecology-based island settlements around the world which offer potential lessons for the future of Exuma.

Education

The educational component is divided into six main parts. The first section includes Conferences, Forums, and Workshops, such as the events held in Nassau in 2011 and 2013. Executive Education includes courses that will be offered in The Bahamas annually, as well as selected openings for Bahamians to take part in the various programmes at the GSD in Cambridge, MA. In addition to Scholarships for Bahamians to take part in any of the degree programmes at the GSD there is also a 6-week summer Career Discovery Programme. Harvard faculty will be available for Educational Outreach in The Bahamas and will also offer a Course, Studio or Independent Studies at the GSD each year of the project.



Project Diagram

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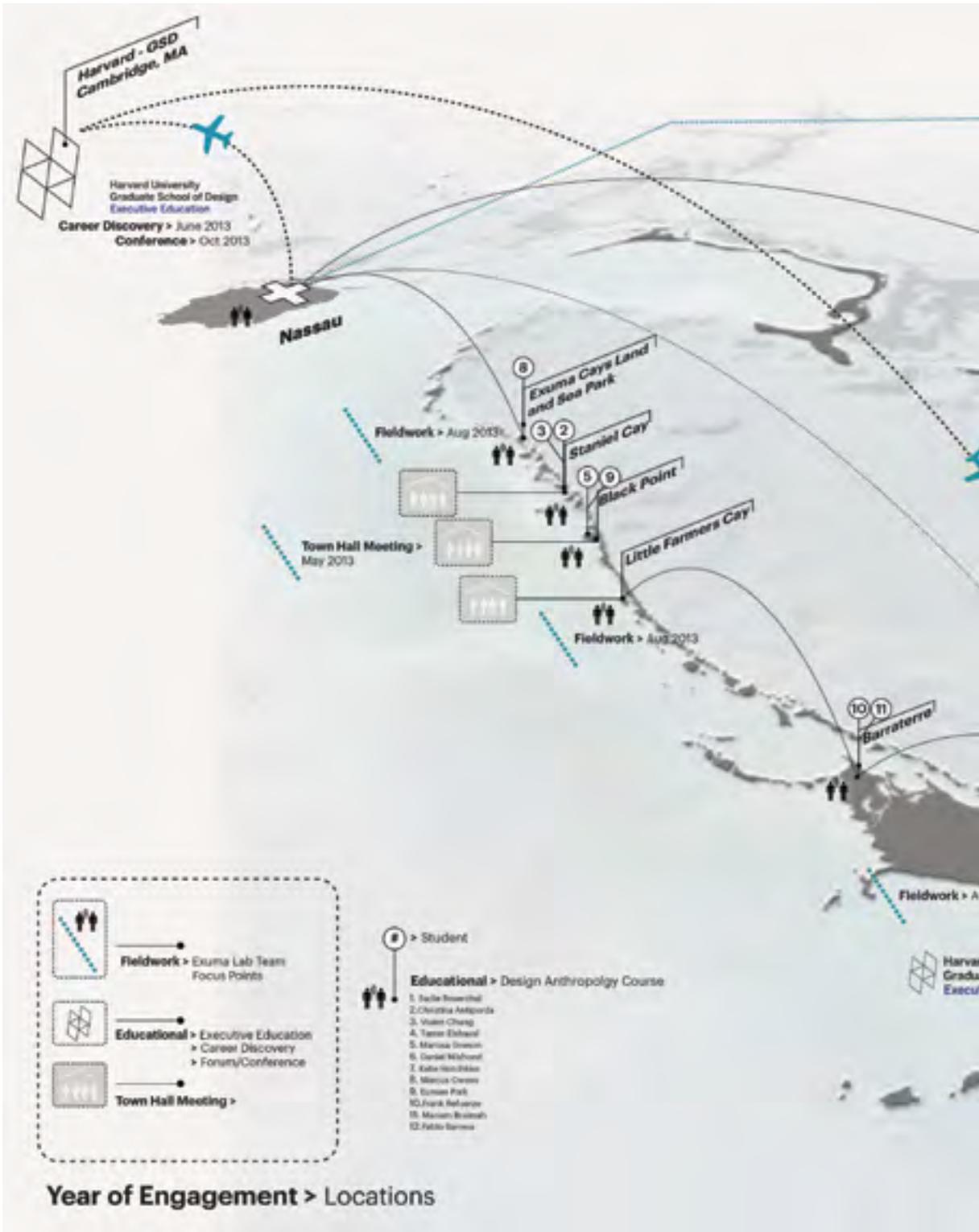
10 Sub-components

- Constituencies for Engagement
- Island Geology and Ecologies
- Indigenous and Recent Economies
- Socio-cultural Traditions and Patterns
- Resource Management: Waste, Energy, Food
- Water and Climate Factors
- Existing Development Frameworks and Land-Use Guidelines
- Existing Mechanism for Implementation
- Case Studies: Ecology-based Island Settlements
- Visual Pollution

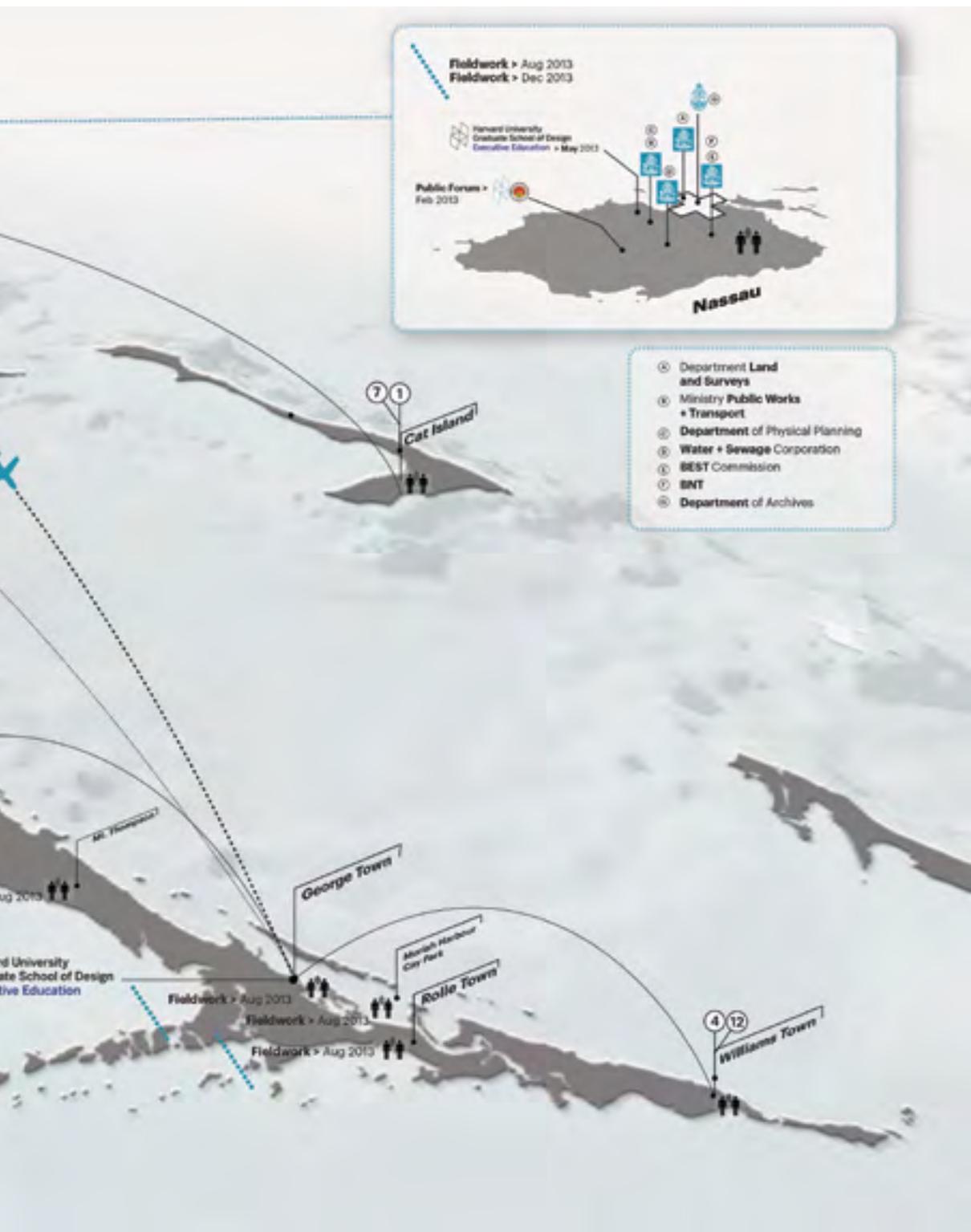
Codification /
Zoning

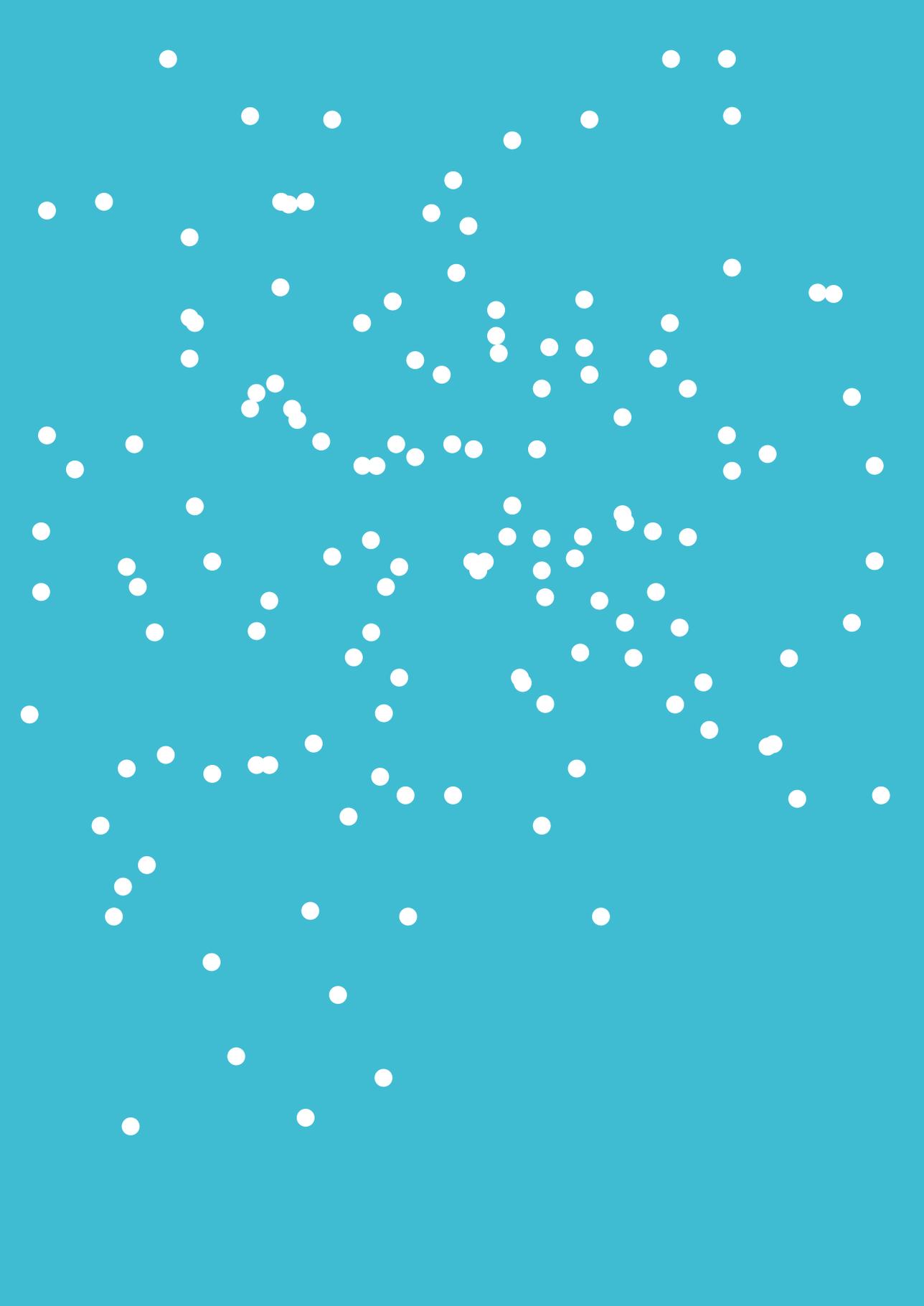
Land Use Plan

36 Months

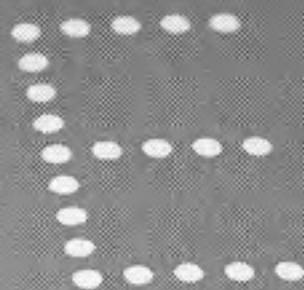


Engagement Map: Year of Engagement





A Sustainable Future
for the Ekumens
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Public Forum

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Summary

INTRODUCTION

This multi-year project titled, “A Sustainable Future for Exuma: Environmental Management, Design, and Planning” extends from collaboration among the Government of The Bahamas, the Bahamas National Trust, and the Harvard University Graduate School of Design.

The project has both Research and Education components. The research is structured around four main themes that inform the overall project: Resource Management, Economic Development, Governance, and Socio-cultural Issues. This report outlines some of the main issues currently being investigated under the four headings. The Public Forum on 19 February 2013, was structured around the four main themes and builds on a conference held in Nassau on 8 July 2011.

It is essential that adequate skill sets are available for the implementation of any recommendations. Parallel with the research component, the project offers educational opportunities to Bahamians and integrates the project within the courses of the Harvard Graduate School of Design. Additional symposia, workshops, and meetings are planned in parallel with extensive field research focused specifically on the Exumas, as well as The Bahamas more generally. We hope that the conversation over the duration of the multiyear project will include and generate a plurality of opinions on the various topics and aspects of the research.

The ultimate goal is to develop a series of proposals for designing and planning a more resilient future for the Exumas. This ambition requires the active participation and advice of various constituencies for engagement, including local residents, private landowners, government and NGOs, as well as temporary residents and tourists. The Forum was broken into four major themes: 1) Resource Management: Waste, Energy and Food, 2) Economic Development, 3) Governance, and 4) Sociocultural Issues. Below are the abstracts of each major theme.

1. RESOURCE MANAGEMENT

The Bahamas is a flat coastal state, which relies heavily on the annual rainfall that the Atlantic hurricane season brings. It is during these events that frequent flooding occurs, but also natural aquifers are recharged. Traditional agricultural practices quickly exhaust the thin and fragile layer of soil. Local food production accounts for only 1.4% of the country's GDP, focusing on vegetable and citrus production for export to the North American market. More than 90% of the nation's food products are imported and the inter-island transport of food from the capital results in an added increase in cost. Island waste disposal and energy production present seemingly intractable problems in terms of sustainability. In the long term, climate change presents a new challenge. Studies suggest that rising atmospheric temperatures will ultimately reduce average rainfall and heighten the intensity of tropical storms. The potential consequences for the Exumas include degradation of marine habitats, loss of freshwater resources due to salt intrusion, the loss of agricultural land, and large-scale coastline erosion. These possible outcomes will not only transform the natural environment, but will also impact all of the social and economic constituencies, including tourist developments and other major infrastructures and settlements on the Exumas.

The Bahamas relies on rainfall precipitation to recharge its limestone aquifer. The country is generally poor in terms of water resources (61.92 cubic meters a year per capita, FAO). Freshwater aquifers in The Bahamas are three-dimensional lenses in the rock bed, usually found within 1.5 meters of the land surface and overly brackish and saline waters. This shallow condition makes them extremely sensitive to any development happening on the surface. Due to the geologic formation of the islands and the lack of freshwater resources, there are concerns relating to food production and security. Any practice of traditional agriculture quickly exhausts the thin, coarse, and fragile, nutrient-poor soil.

2. ECONOMIC DEVELOPMENT

Exuma is not rich in natural resources, thus, its economy has been strongly dependent on foreign income and trade. During colonial times, The Bahamas thrived upon the business of providing war supplies to the United States, enabling Nassau's population to grow and prosper. In contrast, Exuma was mainly settled by Loyalist farmers, who made cotton production successful for a short time. Since then, Exuma has remained

scarcely populated, with economies based on subsistence farming and fishing. In recent decades, The Bahamas has developed its economy towards financial services and mass tourism. Tourism is now the largest economic contributor, accounting for 50% of the country's GDP. The economy of Exuma is a contrasting one, where an international population of tourists sits side-by-side with the more traditional economic engines of fishing and agriculture. Each engine looks for ways to diversify and grow with the scarce available resources. The "no-take zone" of the Exuma Cays National Park adds another layer of complexity. Today, tourism is perhaps seen as an externally oriented activity that sustains the economic fortunes of a few at the cost of environmental sustainability and long-term opportunity for small communities.

3. GOVERNANCE

The Bahamas is organized in two spheres of government—central and local. The Local Government Act of 1996 organized the Family Islands into 32 local governments with the provision of administrators, district councilors, and town committees. This act allows local leaders to oversee the affairs of their own districts. Among their responsibilities is the provision of general health care and sanitation, maintenance, cleanliness, road traffic, licensing, and town planning committees. While the central government is adept at creating wide-sweeping plans and policies, it is in the implementation phase where many initiatives present problems related to the nuanced demands of the varying local spheres. Due to diverse population sizes, each district faces completely different conditions. For instance, a highly populated area, like New Providence, with a population of 210,832 (2010 census), requires a different set of processes than sparsely populated places, such as Black Point in Exuma, with a population of 230 (2010 census). A set of legislative bills and acts, enforcement bodies, and developmental protocols control development and conservation of the Islands. The Town Planning Act (1961) brought into effect Planning and Subdivision Bills, as well as the creation of enforcement bodies such the Town Planning Committee, the Department of Physical Planning, and the Subdivision and Development Appeal Board.

4. SOCIO-CULTURAL ISSUES

The Exumas is an archipelago of over 365 islands and cays, mostly uninhabited. 80% of the land area on these islands is one meter or less above sea level. The name “Bahamas” has its origins in the Spanish word “bajamar” (low tide) referring to the shallowness of the sea. “Exumas” is thought to be the variation of two names with indigenous origins dating back to 1500, Yumey and Suma, which evolved into Cumey and Xuma, as displayed in maps from 1741 and 1804. The cultural identity of the Exumas was influenced by the Spanish and English during colonial times, but was also majorly intertwined with the influx of Loyalists fleeing the United States around 1780. High levels of inequality characterize the islands, juxtaposing wealth and poverty. There is a lack of social inclusion and interaction between socio-economic groups. The Junkanoo festivals on Boxing Day and New Year’s Day are important in terms of cultural expression with roots dating back to the times of slavery. Since then, festivals and regattas have been important social traditions in the Exumas where elastic urban spaces become very crowded at specific moments of the year.

9:00 am	Morning Prayer National Anthem	<u>Franklyn Wilson</u> , Chairman of Sunshine Holdings Group
9:10 am	<u>The Hon. Philip "Brave" Davis</u> , Deputy Prime Minister of The Bahamas, Minister of Works and Urban Development	Moderated by Rema N. Hanna, Associate Professor of Public Policy, Harvard Kennedy School
Break		
9:20 am	<u>Betsy V. Boze</u> , President, The College of The Bahamas	12:45— 1:45 pm Lunch Presentation by Eris Moncur
9:30 am	<u>Neil McKinney</u> , President, Bahamas National Trust	1:45— 3:00 pm GOVERNANCE
9:40 am	<u>Mohsen Mostafavi</u> , Dean, Harvard University Graduate School of Design	<u>Theophilus Cox</u> , Administrator, Exumas <u>Esther Rolle</u> , Black Point District Council Member
Break		
10:00— 11:15 am	RESOURCE MANAGEMENT <u>Dr. Richard Cant</u> , Water and Sewerage Corporation <u>Thomasina Wilson</u> , Department of Environmental Health Services	Moderated by Diane Davis, Professor of Urbanism and Development, Harvard University Graduate School of Design 3:15— 4:30 pm SOCIO-CULTURAL ISSUES <u>Stanley Burnside</u> , Artist <u>Michael Pateman</u> , Antiquities, Monuments and Museum Corporation of The Bahamas
Moderated by Peter P. Rogers, Gordon McKay Professor of Environmental Engineering and Professor of City and Regional Planning, Harvard University		Moderated by Susan Nigra Snyder and George E. Thomas, Harvard University Graduate School of Design and CivicVisions, Philadelphia
11:30— 12:45 pm	ECONOMIC DEVELOPEMENT <u>Reginald Smith</u> , Exuma Chamber of Commerce	Closing remarks chaired by: <u>Eric Carey</u> , Executive Director of the Bahamas National Trust



Speakers

The Hon. Philip Edward “Brave” Davis is an accomplished attorney, parliamentarian, philanthropist and family man. He is a Senior Partner in the law firm, Davis & Co. and is considered one of the leading advocates in the country. In the recent general elections, he regained his seat as Member of Parliament for Cat Island, Rum Cay and San Salvador. He presently serves as the Deputy Prime Minister of The Commonwealth of The Bahamas, and is the Minister of Works and Urban Development. Committed to bringing about positive change in The Bahamas, Philip “Brave” Davis is determined to ensure that his story of success becomes a common theme for all Bahamians.

Betsy V. Boze is the President of The College of The Bahamas. She previously served as the CEO of Kent State University at Stark and as a Senior Fellow at the American Association of State Colleges and Universities. She earned her Ph.D. in business administration from the University of Arkansas, majoring in marketing, with minors in economics and sociology. Dr. Boze plays a major role in the national higher education system of The Bahamas where she works on higher education policies and alternative revenue streams for public colleges and universities.

Neil McKinney is President of the Bahamas National Trust (BNT) and has assisted and supported the BNT for many years. He previously served as the Director and President of the Bahamas Chamber of Commerce, and has also served on the National Advisory Council for Education, the BEST National Climate Change Committee and the Montreal Protocol Steering Committee.

Mohsen Mostafavi, an architect and educator, is Dean of the Harvard Graduate School of Design and the Alexander and Victoria Wiley Professor of Design. He was formerly the Gale and Ira Drukier Dean of the College of Architecture, Art and Planning at Cornell University. Previously, he was the Chairman of the Architectural Association School of Architecture in London. Dean Mostafavi is an author and editor of many books, including *Structure as Space* (2006), *Ecological Urbanism* (2010), *Implicate and Explicate* (2011), *In the Life of Cities*, and *Instigations* (2012).

Richard Cant is regarded as an expert on geology and hydrogeology of The Bahamas. He is currently a consultant providing advice and services to the Water and Sewerage Corporation as well as The Government of The Bahamas on geology, water resources, and environmental issues. Dr. Cant also worked with The Bahamas Government as a hydrologist involved with mapping out and quantifying the water resources of all the major Bahamian Islands. He later joined the Water and Sewerage Corporation as an executive and is presently an active member of many national committees that assist government agencies and NGOs on a wide variety of technical matters.

Thomasina Wilson is the Senior Deputy Director in the Department of Environmental Health Services with responsibility for all sanitary landfill sites throughout The Bahamas. Wilson is responsible for the coordination of activities related to the Health Inspectorate and Vector Control Division. She has also served as an agricultural officer and successfully implemented a border control unit for the Disease and Insect Surveillance Unit at all Bahamian ports of entry. Wilson completed training and proficiency programs in solid waste management while working with the Inter-American Development Bank Project on Solid Waste.

Peter P. Rogers is Gordon McKay Professor of Environmental Engineering and Professor of City and Regional Planning at Harvard University. Professor Rogers is a member of the Technical Advisory Committee of the Global Water Partnership and recipient of Guggenheim and Twentieth Century Fellowships. His research ranges from the impacts of global change on water resources and the development of indices of environmental quality and sustainable development, to interaction of land use planning and central management. Rogers has carried out extensive field and model studies on population, water and energy resources, focusing on environmental problems in Costa Rica, Pakistan, India, China and the Philippines.

Reginald Smith is a native from the Exumas with ten years of service at the Broadcasting Corporation of The Bahamas. Smith was the Administrative Director of the Grand Bahama Island Promotion Board and a Regional Director of Sales and Marketing for Princess Hotels International for sixteen years. He was later involved with high-end real estate sales and currently works on the social development of the island through the Exuma Chamber of Commerce and the Exuma Cancer Society.

Smith put forward a number of programmes designed to rebuild communities by utilizing their unique natural resources to develop a sustainable economic environment for the Exumas.

Franklyn Wilson, a business and community leader, serves as Chairman of Sunshine Holdings Co. Ltd. and Sunshine Insurance Ltd. Wilson was formerly the Managing Partner of Deloitte & Touche and Chairman of The Council of The College of The Bahamas. He is a member of the Worldwide Board of Junior Achievement, a Trustee of Elmira College and Chairman of The Bahamas Chapter of The World President's Organization. Wilson was honored by The Bahamas Chamber of Commerce as its "Distinguished Citizen in Business" and by Her Majesty, Queen Elizabeth II, for service to the British Commonwealth.

Rema N. Hanna is an Associate Professor of Public Policy at Harvard Kennedy School. Professor Hanna is a member of the Evidence for Policy Design research programme at the Center for International Development at Harvard University. She is also a research associate with the National Bureau of Economic Research and an affiliate of the Bureau for Research and Economic Analysis of Development. Her research focuses on how to improve the provision of public services and the implications of environmental policy on poor households in developing countries. Hanna's work in this area has ranged from testing models of corruption and bureaucratic absenteeism in the field to understanding how discrimination affects disadvantaged minority groups.

Eris Moncur is an educator, an author, and a researcher and has served as both a principal and a superintendent of schools for Cat Island, Rum Cay, and San Salvador. He has presided over several important national cultural events and is currently the chairman of various cultural committees such as the National Insurance Board, The Bahamas Order of Merit Award Committee, the National Advisory Committee on CO-OP, and the National Advisory Committee on Agriculture. Moncur is also the recipient of the National 25th Anniversary National Development Award.

Theophilus Cox began his teaching career at the A. F. Adderley Senior High School in Nassau. As an educator, he served ten years in the classroom and twenty years in administration throughout the Commonwealth. His educational background includes a diploma in Youth Work from the University of Guyana, a bachelor's degree from the University of Miami and a masters degree from Andrews University in Berrien Spring, Michigan.

In 2002, Cox joined the Department of Local Government as a Family Island Administrator and is presently posted in Exuma.

Esther Rolle completed her studies at Penn Foster Career School International in 2010, where she received her certificate in Medical Assistance. She interned at the local clinic in Black Point, Exuma where she had first-hand exposure to the particular needs of the Black Point community. Rolle was the first woman to be elected as a Councilor to the Local Government Board for Black Point in 2009 and again in 2012 where she continues to be an active member in her community.

Diane Davis is Professor of Urbanism and Development at Harvard University Graduate School of Design. Professor Davis's work examines the relation between urbanization and national development, the politics of urban development policy, and conflict cities. She has explored topics such as urban social movements and governance, fragmented sovereignty, and state formation. Her current research focuses on the transformation of cities in the Global South, particularly the social and political conflicts that have emerged in response to globalization, informality and political or economic violence. Davis is an elected member of the Urban and Regional Development Section of the International Sociological Association and serves on the editorial boards of several notable journals.

Stanley Burnside received his Bachelor's and Master's degrees of Fine Art from the University of Pennsylvania. In 1979, he returned to The Bahamas and became a member of the Saxons and later a founding member of the One Family group. He went on to teach at The College of The Bahamas. He is a co-founder of the collective, Bahamian Creative Artists United for Serious Expression (B-C.A.U.S.E.), which promotes Bahamian art internationally. Burnside's work remains committed to his belief that Bahamian art is a powerful tool in socio-economic development.

Michael Pateman is the Senior Archaeologist for the Antiquities, Monuments and Museum Corporation at The National Museum of The Bahamas. He holds a Ph.D. in Regional Development Planning and a MA in Applied Anthropology/Public Archaeology. Dr. Pateman's research aims to integrate community/indigenous based knowledge and scientific knowledge to develop effective plans and policies for sustainable protection of important cultural/natural resources. His other research interests include pre-Columbian diet, political ecology and heritage management of The Bahamas.

Susan Nigra Snyder, a registered architect, and George E. Thomas, Ph.D. are partners in CivicVisions. Ms. Snyder investigates how local identity is expressed, maintained and able to develop while being responsive to larger global and media forces that affect the realms of contemporary life. She has received University of Pennsylvania Research Foundation grants to study forces of consumption on urban form. Public service includes serving as chair of Philadelphia Redevelopment Authority's Advisory Board of Design, a member of the Fine Arts Committee and of the Delaware Valley Smart Growth Alliance jury. Her work has been published in Quaderns Magazine, Modulus, A.D. and Arch+.

George E. Thomas, Ph.D., a cultural and architectural historian and Susan Nigra Snyder are partners in CivicVisions. Dr. Thomas has written and lectured widely on nineteenth and early twentieth century American architecture with a focus on the relationship between cultural innovation and architectural design. His teaching seeks to understand the interconnection between history and patterns of modern life. His many books include *Cape May: Queen of the Seaside Resort*; *Drawing Toward Building: American Architectural Graphics 1732-1986*; *Frank Furness: The Complete Works*; *William L. Price: From Arts and Crafts to Modern Design*; and forthcoming, *The Poetry of the Present: Architecture in the age of the great machines*.

Eric Carey is the Executive Director of the Bahamas National Trust (BNT) and formerly the BNT Director of Parks and Science as well as a Government Wildlife Conservation Officer. Carey is a member of the Bahamas National Wetlands Committee, worked on the BNT Wildlife, Ornithology, and Game Birds committees, was a former board member of the Cape Eleuthera Foundation, and served two terms as President of the Society for the Conservation and Study of Caribbean Birds. His international awards include the Partners-In-Flight International Conservation Award and the Wings Across the Americas Research and Management Partnership Award.

Opening

- Eric Carey Good morning, ladies and gentlemen. My name is Eric Carey. I'm the Executive Director of the Bahamas National Trust. I was not the first choice for MC, I'm a stand-in. Because clearly no one would give me a microphone without clear guidelines, but here we are.
- We'd like to welcome you to this important landmark conference. I think it's going to be a wonderful day. And we will start out this morning properly by inviting Mr. Delrico Bonamy from The College of The Bahamas (COB) who will begin with the opening prayer.
- Delrico Bonamy Good morning. Let us pray. Heavenly Father, we thank you for bringing all the participants here today. We thank you for all of our blessings, including the beautiful islands of the Exumas. We ask that you allow us to have a more than productive day and that our work be in your favour. In Christ's name we pray. Amen.
- Eric Carey Thank you very much. Next, to lead us in our National Anthem we will have Miss Myra Ferguson, also a student here at the College of The Bahamas.
- Myra Ferguson Good morning. [NATIONAL ANTHEM]
- Eric Carey Thank you. Please be seated, everybody. As you will read in your programme, this forum is the beginning of a multi-year project entitled, "A Sustainable Future for Exuma, Environmental Management, Design and Planning." This collaboration is between the Government of The Bahamas, the Bahamas National Trust and the Harvard University Graduate School of Design. It is indeed a landmark opportunity for us as a country to seriously think about where we take these fragile islands.
- The responsibility for setting conditions that are going to exist a hundred years from now rests with us in forums like this. And so, this isn't going to be a plan. I was in a meeting last week with [Honourable Philip Brave Davis], the Deputy Prime Minister (DPM). And, you know, he doesn't like plans that sit on the shelf. He made that very clear. And he doesn't involve himself in useless planning exercises. So I don't think he would be here

today, with us, if he didn't think this was a very serious and important exercise.

I'd like to start with some protocol by acknowledging the Honourable Brave Davis, our DPM and Member of Parliament for Cat Island. We're not going to argue about Cat Island today, sir. We also have Dr. [Earl] Deveaux, former Minister of the Environment, and Mrs. Deveaux, welcome. We have Mr. Neil McKinney, President of the Bahamas National Trust (BNT), Dr. Betsy Boze, President of the College of The Bahamas (COB), and Mohsen Mostafavi, Dean of the Harvard University Graduate School of Design (GSD). We have senior government officials, including Chris Russell, Director of Forestry, and Gordon Major, Director of Housing. I saw Mr. [Dwayne] Curtis from the Department of Environmental Health Services and a number of others, including Eleanor Phillips from the Nature Conservancy and Chris Maxey from the Cape Eleuthera Institute, the Island School. Now for the team from BNT, which includes Mr. [Eris] Moncur from Cat Island, my former [LAUGHTER] Headmaster of Government. And I think I only got in trouble once. So, we'll leave that at that. But we would like to welcome you all to this important conference.

I'd like to give a brief introduction for the Honourable Philip Edward Brave Davis. Brave Davis is an accomplished attorney, parliamentarian, philanthropist and family man. He's a senior partner in the law firm Davis & Co., and he is considered one of the leading advocates in the country. In the recent general election, he regained his seat as a Member of Parliament, representing Cat Island, Rum Cay and San Salvador. He presently serves as the DPM of The Commonwealth of The Bahamas. He is also the Minister of Works and Urban Development. Committed to bringing about positive change in The Bahamas, DPM Brave Davis is determined to ensure that his story of success becomes a common theme for Bahamians. So, ladies and gentlemen, please stand and welcome our Deputy Prime Minister.

Deputy Prime
Minister

Thank you. Good morning. Please be seated. To my former colleague, the Honourable Dr. Deveaux and his lovely wife, B.J., Countess Beatrice and to Neil [McKinney], and to my good friend Eris [Moncur], I'm glad to see you here. I had asked them to ensure that you had at least a little part to play in my quest to ensure that The Bahamas' future is sustained. To Dean Mostafavi and all of you who are present here on this second convening of the forum on a sustainable future for Exuma, thank you and welcome.

I am very pleased to share a few thoughts with you this morning at this forum, which is cosponsored by the Bahamas

National Trust, the Harvard University Graduate School of Design and the Government of The Bahamas. I know that also present today is the Director of Public Works, Mr. John Canton, who of course has the responsibility to ensure that our development is sustainable.

I wish to join the planners in expressing appreciation to Dr. Boze, President of the College of The Bahamas, and the team for accommodating this forum. As we all know, there is so much that goes into organizing a successful event and especially one that involves so many sponsors and participants. Each has to be satisfied that the event represents the best that is possible. I have every confidence that we shall all come away from this forum being grateful to the organisers, to the presenters and to the panel members for their contribution to what we all know is of paramount importance. That is to say, the protection and development of all essential elements, what makes us a geographic location deserving of protection. We are a people worthy of this great effort to protect and enhance our homeland and to ensure that what we bequeath to our descendants clearly confirms that we care for both ourselves and for them.

Now some of you might know my father was a Cat Island man. But what you may not know is that my mother is an Exuma woman. My cousins and friends from Exuma have cautioned me to point out a casual error. It is with their very best of intentions that they ask it is corrected. And I noticed the sign when I came in. Without doing any damage to the wonderful efforts of the team responsible for the work done so far as to the future efforts by this team in crafting a sustainable future to Exuma. And Reginald Smith will recognise this. Good to see you, Reg.

You might have heard the last phrase, a sustainable future for “Exuma.” It is this that my cousins and friends wanted me to assist in correcting. When we lived in Exuma, we had at least one name for the chain. When Europeans sailed through after the Lucayans were exterminated, they declared new names for the islands and cays to aid the trips that followed. And finally, after having had several names, the authorities in the then British Colony on the islands of The Bahamas settled on “Exuma,” in 1793. It is at this point in time that George Town—named by the colonial governor in honour of his sovereign, King George the III—was established as the capital.

During the 1950s, after being discovered by American yachtsmen as a wonderful location for cruising vacations, and because of its 365 cays, yachting guides started to refer to them as “the Exumas.” It was this name that the predecessor of the Ministry of Tourism picked up and used. But to this day, this beautiful group of islands and cays remain Exuma, which

includes the Exuma Cays, Great Exuma and Little Exuma.

Many are greatly pleased when their island home is properly identified as Exuma. Not to stir up another debate. Or to serve another debate as I look at my good friend and constituent, Eris [Moncur]. So I therefore invite you to join me in this effort to protect both the natural and historical history of Exuma.

Just last week I met with the chairman and senior staff of the Antiquities, Monuments and Museum Corporation and later with the executive management team of the National Trust. Their effort was to brief me on opportunities and challenges facing their respective organisations located on the islands that I represent in Parliament—Cat Island, Rum Cay and San Salvador. We, of course, also addressed their interests in the overall national context.

We, together, acknowledge the on-going need to have citizens embrace the concept of ownership of our natural environment in the historical context, as well as those things of value, which are crafted by people over the ages.

The political directorate of The Bahamas enjoys a respectful relationship with both organisations, and recognises how valuable the ongoing work is to the future of The Bahamas. We, together, acknowledge the ongoing need to have citizens embrace the concept of ownership of our natural environment in both a historical context, as well as in terms of those things of value, which have been crafted by people over the ages.

I submit that this is why your work is very important. Your approach is scholastic objectivity. You seek to serve the best that research offers. Our Bahamas is special in that our borders are spread across Exuma, Eleuthera, as well as Andros and San Salvador. [Because of this encompassing expanse], we are just beginning to learn about the natural life forms that comprise our greater ecosystem. [The environmental importance of these islands dates back] over 3.5 billion years. Stromatolites, for instance, are critically important for creating the environment for subsequent air breathing life forms. Yes, as I said, for the last three and a half billion years. Our natural marine environment provides the sustainable means for its continued existence.

There are islands with great historical significance within our borders. For example, there is an island where the first recorded and continual connection between the Europeans and the aboriginal Caribbean Americans took place. Another

lesser-known fact is that we are the location in the Americas where the first recorded Christian service of Thanksgiving occurred.

We have these jewels of islands and a natural flora and fauna, which inhabit the surface and underwater realms. We have a history, natural and cultural, some of which is good and some of which is bad.

What we have in spades is ambition to make things better. It is a focus on learning and a commitment to excellence, both of which are complemented by the hard work that will craft our success going forward. The commitment [to excellence] of all involved in this forum is just one more example of how each and every one of us are devoted to producing results that will bring quality to so many. Thank you all for your love and respect for The Bahamas, for your dedication and for your scholarship. I thank you, Exuma, and Exumians thank you. The Bahamas will be the better for it all. Thank you very much. [APPLAUSE]

Eric Carey

Well, the DPM has spoken. And as we plan for a sustainable future for Exuma, we'd like to thank him for those inspiring words. I'd like to apologise in advance. The DPM won't be with us for the entire day, as interesting as it is. I know he has another commitment that he may leave for, shortly. But thank you very much, sir.

This is obviously an important discussion forum. It is [of the utmost relevance to the sustainable future of The Bahamas]. I've been approached by any number of persons who assume because they saw the name "Harvard" that it meant that they were going to bring down some of the cold from Cambridge that we all experienced last week in full force. [All joking aside, many people thought that this would be] a process in which our Harvard collaborators would just sit on top of us and produce something and then move forward. However, as you interact with this team you will realise that is not the process intended at all. The process is a discussion with stakeholders [and hopes to create qualitative and effectual outcomes].

The [methodology of this collaboration extends from the idea that] the experts sit amongst us, the people who live in the communities of the Exumas and Cat Island and throughout the archipelago. These are the people who will inform this process most. Remember, we're building something for their future and for their grandchildren. And so they have to be involved in this process. All that said, do not be intimidated by the great Harvard. Remember, many years ago we sent [Harvard], which was at that time the largest gift, several tons of Braziletto wood that they then sold and used to purchase a building that became an

important residence for their students and for study. So [if anything] they should be intimidated by us, as they sometimes are. This is just to say that it is a process in which Harvard intends to be involved, to provide advice. They are here to help with the conducting of research, but definitely not to determine the outcome. The outcome will be determined by us. And so our roles are very clear as we move forward with this discussion. It is a collaboration that starts today and will continue for a couple of years. At the end of this timeframe, we will have a process that we all developed, together, and will therefore be easier for us all to buy into.

So I'd like to invite at this time our host, Dr. Betsy Boze. Dr. Boze is the President of the College of The Bahamas, previously serving as CEO of Kent State University and is a senior fellow at the American Association of State Colleges and Universities. She earned a Ph.D. in business administration from the University of Arkansas, majoring in marketing, with minors in economics and sociology. Dr. Boze plays a major role in the national higher education system of our country, where she works on higher education policies and alternative revenue streams for public colleges and universities. So, please welcome at this time, Dr. Betsy Boze. [APPLAUSE]

Betsy Boze

Honourable Deputy Prime Minister, other dignitaries and distinguished guests, College of The Bahamas community, friends of the College, all welcome and good morning. It's my pleasure to welcome you today to this important forum on the sustainable future for Exuma. I'm going to have to practice citing that.

On moving to The Bahamas, I quickly learned there was at least two questions that were best left unanswered. Which is my favourite Junkanoo group? And what island do I like best? The Bahamas has many talented Junkanoo groups, and for those who are visiting, we'll explain later if you don't know that already. We have even more breathtakingly beautiful islands, each with unique culture and unique ambiance.

But if I had to pick my favourite, the islands and cays of Exuma would be among the contenders. The college has had a presence in George Town, Exuma for almost twenty years. In 1994, twenty women petitioned the college for a programme to earn an associate's degree in office management. Jennifer Kettel was appointed as the coordinator of the COB Exuma Centre, and local high school teachers were recruited to teach evening classes. Faculty from COB travelled to COB Exuma on weekends to teach. And complementary accommodations were provided by the Peace and Plenty Hotel for those faculty members.

In 1998, after four years of studying part-time, these twenty women completed their degrees. Today, with the assistance of the Exuma Foundation, COB Exuma offers courses in college prep, math, English, computer literacy and other academic and vocational courses. In October, our College Council held its monthly meeting in George Town for the first time. It was a meeting with alumni and island administrators that highlighted the importance of Exuma to The Bahamas and the College of The Bahamas.

The College of The Bahamas is committed to driving national development and to economic and environmental sustainability. The college is one of only five international signatories to the College and University Presidents Climate Commitment, to reduce our footprint and to integrate sustainability and climate neutrality into our curriculum and our co-curriculum.

We also added an addendum to that signatory. And that was about the importance of climate change to small and developing island nations. Through our Small Island Sustainability Programme, we are seeking to develop a generation of leaders that understand the importance of appropriate policies and structures to support environmental sustainability. To paraphrase from Tom Friedman's *Hot, Flat and Crowded*, this is not just about developing new sources of electrical power. This is about developing new sources of national power. The art of sustainable living is the ability to support communities today, without jeopardizing the environment for tomorrow.

As I welcome you to this Exuma public forum, I reflect upon the three pillars on which sustainable development and this forum are built. First are the socio-cultural issues. One must understand the society and the culture to move forward. But this also includes the governance and the participatory systems for expression of opinion. The socio-cultural issues must include the development of policies and laws, the selection of governments, the forging of consensus and the resolution of differences.

Second, with respect for and protection of our natural resources, we live in a fragile, archipelagic nation. Our economy and our livelihoods depend on these natural resources. We must raise awareness about their importance, the fragility of our natural physical environment and the effects on our human activity. We must have a commitment to factoring environmental concerns into our policy decisions. It is here, [where sustainability meets policy], that the missions of the College of The Bahamas and the National Trust and the important work that they're doing clearly intersect.

The third [pillar to consider] is the economy. Part of the

college's mission is a commitment to being an engine for national development. And with that commitment comes sensitivity to the limits and the need for purpose in our economic growth. We must work to develop meaningful and well-paying jobs for Bahamians, jobs that are both economically and environmentally sustainable.

We must be attentive to the impact of economic development on society and the environment. This comes with a greater commitment to reducing personal and societal levels of consumption, [which can derive from a heightened sense of awareness] and concern for the environment and social justice. These elements are the foundation for ongoing and meaningful change. Human society is in constant movement. The Bahamas and other small, developing island nations must live with the consequences of lifestyle choices and policy decisions often made elsewhere.

We cannot maintain the status quo. But, through purposeful discourse like this forum today, consider the direction and the implications of change. Two weeks ago, we had the privilege of hosting Robert F. Kennedy, Jr., who spoke to us about climate change. At that time, I shared the parable of the frog in the pot of water. The story is that the frog jumps into a pot of boiling water and immediately recognises the danger and jumps out. But—according to this parable—if the same frog jumps into a pot of lukewarm water that is being slowly heated, it will simply stay in the water until it's too late.

I had the privilege of attending a visit at the Island School recently. And at the Cape Eleuthera Institute, I saw a similar study being conducted only with fish. In this case, the question was, will the fish stay in the tank and be heated until it can no longer survive, or will it transfer to a smaller area in the tank with predators? Some choice to make.

**We must humanise the way that we frame, talk about and promote environmental education.
We must push for deeper economic, cultural and social shifts in environmental education.**

Could our fate be similar to the frog or the fish? It may be unless we recognise the impending danger. The solution is environmental education and research. We must position The Bahamas to better manage our environment through design and planning. I welcome our colleagues from the Harvard GSD, as they help us position ourselves for sustainable growth and





development for both Exuma and The Bahamas.

As Bahamians, we must begin to change our mindsets, our attitudes and our behaviours towards the environment. In addition to tourism, we must reduce our dependency on imported food. We must consciously design agricultural areas with diverse, stable and resilient ecosystems. We must harmoniously integrate our landscape and our people, providing food, shelter, energy and materials in a sustainable manner.

We must also humanise the way that we frame, talk about and promote environmental education. We must push for deeper economic, cultural and social shifts in environmental education. It's my hope that this forum on a sustainable Exuma becomes a model for land use planning and management, which can be adopted throughout the length and breadth of The Bahamas.

We here at the College of The Bahamas are committed to doing our part to educate our students and the wider Bahamas to become sustainable agents of change for a better and safer environment. Education has a key role to play in empowering individuals to become societal and environmental advocates and make informed choices to model sustainable practices. Thank you and enjoy the forum. [APPLAUSE]

Eric Carey

Thank you very much. And again, thank you for having us at this wonderful facility that I know was built to hold forums like this to encourage dialogue. I'd like to acknowledge and welcome Mr. Renward Wells, a Member of Parliament for Bamboo Town and the Parliamentary Secretary in the Ministry of Works. He had an earlier commitment, but he still made it here. Thank you very much for coming, sir. I'd also like to acknowledge our own Sandy Mactaggart, one of our distinguished landowners in Exuma Cays Land and Sea Park. We've certainly had a thousand conversations about sustainable planning for the Exumas. And I know I've not been able to deliver. But we're still working on it. And I do think that Sandy will take us further along that path. I also think we'll have some good stuff coming out of this process. So, welcome Sandy.

I also neglected to initially acknowledge Mr. Ezra Kemp. I'm sure he's here. He was here earlier. He was the Chief Councillor for the Black Point District. I know he was here earlier. There he is. Yes. Actually, please stand, because it really is about the sustainable future for these communities, whether mainland or the Cays of Exuma. And so we've had many discussions with the Black Point community about relationships between Black Point and BNT in Exuma Park. Many of those discussions I think have taken a very positive turn recently. And I think this forum and this process is going to be important in articulating, identifying and

then coming up with the solutions that come out of the communities to help us make sure that we meet [the needs of those communities] as well. So, Ezra thank you for coming today.

I'd like to call at this time my boss, the Chairman of the Board and President of the Council of the Bahamas National Trust, Mr. Neil McKinney. Neil comes from a long line of BNT [leaders]. I used to use the word pedigree, but you all might confuse that. But definitely he is a bona fide BNT [member], born and bred. I don't think becoming president could have escaped him even if he wanted it to.

His grandfather was a founding member. His father is a founding member and also a past president. Neil is seriously committed to the environment. We don't pay him much at the BNT for his role. But Neil has an especially strong passion for our marine resources. And we just launched this week a National Conservation Campaign. And Jared Dillet, where are you? Mr. Dillet is leading that effort to address this sustainability of Conch. So we're talking about the natural resources and cultural resources. It's all intertwined.

Neil has been a strong advocate since he became the president for BNT, showing more leadership and support to the Department of Marine Resources and other agencies to protect our marine resources. So I'd like to call at this time, Mr. Neil McKinney, President of The Bahamas National Trust. [APPLAUSE]

Neil McKinney

Thank you, Eric. That was a very kind introduction. He did used to talk about my pedigree. And I told him that's what they did at the Kennel Club. So he's actually changed the introduction. So thank you for that.

Good morning, welcome to all of you. Thank you for being here. Protocol is being established. So I'm going to dispense with that. It is a great privilege and a wonderful opportunity to be a part of this symposium today. For the Bahamas National Trust to have the chance to work with the Harvard Graduate School of Design, the Government of The Bahamas and the College of The Bahamas is, I think, I don't know if it's unique, but it's certainly a very special symposium for us. And we hope to make the most of every opportunity and to maximise the benefits of this collaboration. We believe it is an extremely important part of our national development planning.

And we've reached a stage in our development where we really can't just let things occur. We do need to plan for the future.

Far too often things just happen here and people say, “why did that happen?” And the answer is there wasn’t any planning. And we’ve reached a stage in our development where we really can’t just let things occur. We do need to plan for the future. And so this is important. It’s that old maxim about those people who fail to plan, plan to fail. We’ve all heard that. And unfortunately, that is happening in our family islands far too often.

On many or most of the islands, the population is declining. Not because there’s anything wrong with the islands. But it’s because there are no jobs. There is no economic activity. And people leave those islands and they come to New Providence to look for work, as any of us would do the same thing. And of course what happens is the islands or the settlements shrink. And as they shrink, we become more and more crowded here in New Providence.

And the settlements in some ways become less and less sustainable, simply because those who remain are the very young and typically the grandparents taking care of the children. And if we’re going to have a sustainable future on the islands, that’s a trend that we need to reverse. And perhaps something can come out of this forum that will help us with that problem.

This workshop is an opportunity to address some of those issues and to start to describe some of the necessities to sustain small settlements. I don’t know all of the numbers, but when reading some of the material here, Black Point has approximately 230 people. I know that Crooked Island has about 330 people. Theoretically you could take a lot of these small settlements and fold them into New Providence and we wouldn’t really see the difference of another 1,000 or 2,000 people. But the people of the settlements might not be quite so happy with that. And so we need to address that and see what we can do to sustain them.

Some of those things that are obviously of key importance are potable water, education, medical facilities and economic activity, to name a few. And of course there’s a great challenge in this. You can’t put a massive hospital in every little settlement. It’s clearly not feasible. [This touches upon one of the larger] problems: how do you manage these small areas in a rational sense and still provide the basic necessities for the people who live there?

At the same time, we need to understand the effect that a growing settlement, as opposed to a declining settlement, would have on the environment and to decide what we want to preserve. As an example, far too often, not just on the islands, here in New Providence, too, mangroves are filled in without permission. And that happens on an almost daily basis. You drive by somewhere and you see someone has taken a [Caterpillar] D8

and pushed into an area. And that mangrove is a little less than it used to be.

Sooner or later, you've lost a juvenile marine nursery. You lost what was perhaps a potential eco tour in terms of providing jobs for people in the islands. And of course you've lost a very valuable hurricane buffer as well. [This is a good example of how] one very simple act can actually have multiple effects, none of which we particularly like.

To give you an example of just how fragile some of our terrestrial life is, I was down in Exuma a couple of weeks back and I was with a botanist. We were walking by a palm that we would use for top and thatch to weave. And I asked the guy how old it was because it was about 2 feet taller than me. And he said well, you know, it's really hard to tell because the soil is mainly sand. And we don't know if there's earth underneath for nutrients or whatever. But the soil here is very fragile.

And he said it was certainly at least 50 years old. Probably 75 and in fact it could even be 100 years old. And so the point I'm trying to make here is that when we clear areas, we don't really understand how long it took for the vegetation to catch itself and grow. One of the problems we do have with top and thatch in this country is if you go to the places that use it, you'll find there's very little top and thatch around there. And that's because we are harvesting it in a manner that is not sustainable.

People from Black Point would not be traveling 19 miles to the Exuma Park to try to get top or thatch if it was closer. The reason it is not closer is because it is being harvested. We need to find a way to make the thatch come back, which may take fifty or seventy-five years. But at least let's find a way to do something like that and to deal with it, to manage it on a sustainable basis. That is one example I use to illustrate just how fragile our natural flora and fauna are.

Most of our island communities rely on the marine environment for a significant part of their food and also for their income. It is crucial that these resources are properly managed or the time will come when the settlements are no longer able to rely on the sea and its bounty for their everyday living.

The price of fish already tells us that this resource is no longer as abundant as it used to be. And again, I'm going to use another example here of management. And I already told this story, but just think of this as having a two on it. For those of you who were at number one, apologies, you've heard this before. For those of you who weren't there, I'd just like to use this as an example of the fragility of things that we think are so abundant.

At the previous conference or symposium, I mentioned the demise of the passenger pigeon. And without going into all the

detail that I did then, I'm still going to reference it and tell you that there were estimates back in the early 1800s—there were probably 5 billion passenger pigeons—obviously a limitless, endless resource. And people hunted them for market. They shot them. They filled barrels with them and sent them east for food. This started in the early 1800s and by 1914, the passenger pigeon was extinct. And that tells us that sustainability is not just about the lack or the abundance, but it's about the management of a resource.

And so I think of conch and crawfish and grouper as a coefficient group for our marine resources and I put them into that context. It is something that we definitely have to consider—we need to ask ourselves the question: Are we as a people willing to manage our resources properly? Not taking all that we can, knowing that we must leave enough for tomorrow. Can we instill a culture of planning, which is too often lacking within our nation?

In other countries, national parks are protected by local people or communities who live nearby. This is because jobs or other economic activity can provide income to the community, user fees are redirected back to the communities... They see a direct correlation between the health of the environment and the income provided... Can we bring that concept to The Bahamas and make it work?

In other countries, local people or communities who live nearby protect the national parks. This is because jobs as tour guides or selling souvenirs or paintings or other economic activities can provide income to the community. User fees are redirected back to the communities and they see a direct correlation between the health of the environment and the income provided. Can we bring that concept to The Bahamas and make it work?

Eric is motioning at his watch here. I did have a little more to say. But I'm going to stand down from this. I do want to say that we certainly need to use or consider the use of new technologies, to combine them with the way we live so that we can enjoy the benefits of science without losing our culture and traditional lifestyles. And a specific example of that might be something like reverse osmosis, where we could use and produce potable water in settlements. Some places have rainwater. Some places have groundwater. We're looking at climate change and there might

not be enough rain or groundwater.

There was a spill up in Governor's Harbour the other day. People were trying to steal diesel or some fuel. If the groundwater becomes contaminated in a small community, what are you going to do? And so we do need to be considering science as a backup or a third leg, so that we do not come to some dead end and then suddenly find that a whole community needs to move because of one significant change. These items are just some of the things that are important and might be worth considering.

How do you actually define sustainability? What I think of as sustainable and what you think of sustainable might be different things. And it might be worth having a discussion as to what sustainability actually means and how we define it.

And then my last comment is that although today we are talking about Exuma, any solutions we have here or ideas that we come up with need to be practical enough and flexible enough to roll out and meet the needs and requirements of all of the small island communities here in The Bahamas. Thank you.

Eric Carey

Thank you, Mr. President. DPM, thank you very much. We know you have a busy day today. But you'll get full reports. And I know you'll be involved in this process. Thank you.

Thank you very much. Now we will call from Harvard, Dean Mohsen Mostafavi. His bio is eighteen pages long, but we've condensed it to one paragraph. [LAUGHTER]

An architect and educator, Mohsen Mostafavi is Dean of the Harvard Graduate School of Design (GSD) and the Alexander and Victoria Wiley Professor of Design. He was formerly the Gale and Ira Drukier Dean of the College of Architecture, Art and Planning at Cornell University. Previously, he was the chairman of the Architectural Association of the School of Architecture in London. Dean Mostafavi is an author, an editor of many books, including *Structure as Space* (2006), *Ecological Urbanism* (2010), *Implicate and Explicate* (2011), *In the Life of Cities* (2012), and *Instigations* (2012). The Dean, as we learned last week has completely transformed the GSD. He's done wonders there. And we're really privileged and honoured to have you with us, sir. Thank you.

Mohsen Mostafavi

Thank you very much. [APPLAUSE] Thank you so much. Thank you all so very much for being here, for your hospitality, and Eric, for your kind words. We're running a little bit late and I am very conscious of the fact that Rochelle is very concerned that all the food that's outside is reached in the next few minutes, before we actually start our session at ten o'clock this morning. Because I know that there are wonderful things that are ahead of us.

We need a course on small subsistence farming. If we had a bit of subsistence farming, fertilisers and instructions on how to farm, we would be better off. Some people want to take the initiative, but the problem is that they don't have the skills or supplies to grow their own food on the commonage land. Our grandparents did it. But we don't know how. It would help us because we cannot depend on the mail boat.

*Young people go to Nassau.
There are no jobs here. So they have
to go even if they want to stay.*

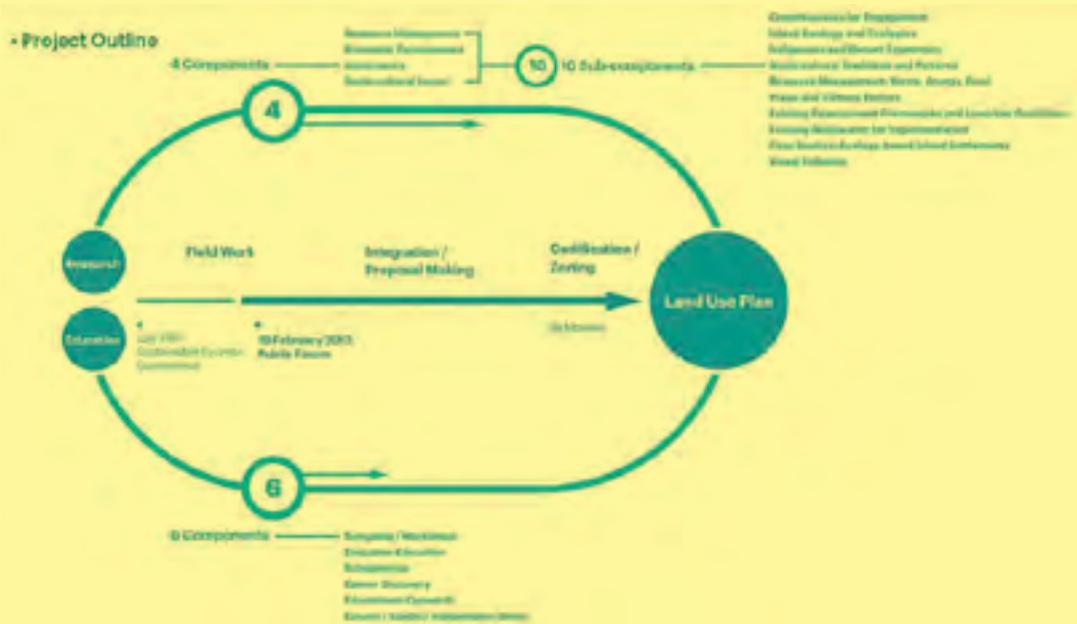
Obviously like everybody else, I'd like to thank the DPM for his support. Also, getting to this stage, we've had a lot of conversations with a number of other people from the government, including the Minister of the Environment, Kenred Dorsett. I want to thank President Boze for your support and for allowing us to be here. I'd also like to thank Permanent Secretary Colin Higgs and Permanent Secretary Camille Johnson, who couldn't be here. Thank you to Neil McKinney. And to Eric, who has been really an incredible advocate of this project. And I very much want to thank the former Minister of the Environment, Dr. Earl Deveaux, who championed this project from the beginning, for being here; and of course, Mrs. Deveaux. I'd also like to thank former Prime Minister Ingraham. The list is very long. Of course thank you to our speakers and moderator and the people at the GSD, Gareth Doherty and the team. Thank you to all of the people who have been working on this particular project. I really want to thank everybody. But then I'll spend my whole time just thanking people.

Just to give you a little bit of a context, this is a project that has been going on for a little while. This stage of it is really very recent. And again, it has been made possible with the incredible support of Countess Beatrice von der Schulenburg.

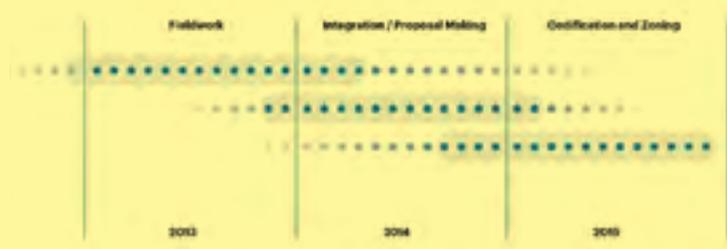
It's very important that we recognize your participation, the participation of communities, the participation of the government, the participation of local experts, which is really the focus of the work here today, and of course, the participation of international experts ...

The project at this particular stage is a multi-year research project that involves multiple constituencies. It's very important, as Eric said, that we recognise your participation, the participation of communities, the participation of the government, the participation of local experts, which is really the focus of the work here today, and of course, the participation of international experts who are some of the key components of the project. So it's actually everybody working together that will make this a success.

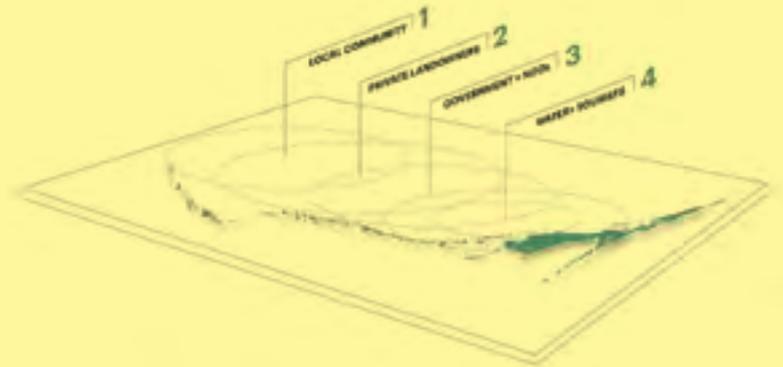
In terms of our role, we see our role, as Eric said, as both learning and hopefully contributing to the project and the conversation. A project that we see as having multiple moments of impact and multiple moments of realisation as opposed to a multi-year project that then has a conclusion at the end.



This diagram basically shows you that the first phase of this project involves fieldwork. The second phase is really about proposals, making things and doing things on-site. The last phase is about the concepts of codification and zoning. Really, it is critical to see how the government can be much more systematically engaged, having learned from the knowledge of the communities and the examples of the other kinds of similar projects that have been realised.



This is the idea of the fieldwork, integration and codification. Here is really to say that the Exumas, or the Exuma, as the DPM suggested we call them is really a movement from the Exumas to Exuma. In some ways removing the tension derived from the multiplicity of multiple islands, multiple stakeholders, and multiple interest groups and moving towards the notion of certain kinds of unity and community, is part of that particular process.



From the beginning, it was very difficult to speak in terms of a singularity, Exuma as something that is already formed as a totality. So we very much take the words to heart but also see those as part of the greater process that involves, for example, some of the conditions that we have identified that are important to the local communities. We have private landowners. We have government agents and NGOs. And we have the importance of water and tourism. There may be many other criteria.



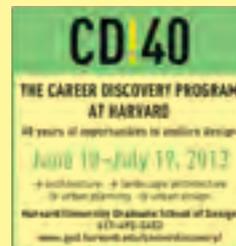
This is where we would like you to help us. But these are some of the conditions that have to be part of this very important process of engaging many people and understanding what the local community needs. Listening to the local community has been a key component of this project for us.



Obviously it's also important to recognise that—as has already been stated—while the focus is on the Exuma chain of islands, we actually also want to have a certain set of projects or experiences that we are learning from other places. In short, ideally these processes can have replication applicability for other places as well.

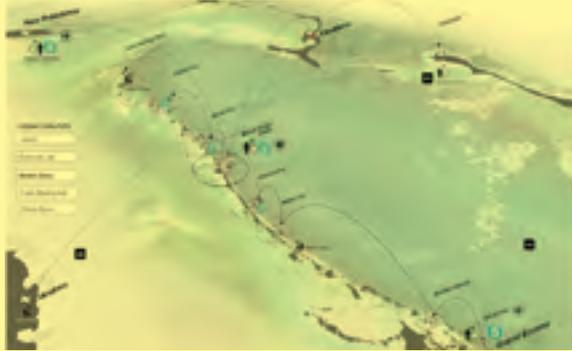
This has already started with the concept of conferences and discussions and has resulted in the report that is in front of many of you. And we would very much like you to give us feedback on that.

A component of this project in terms of implementation has to do with getting multiple groups to engage with each other. Programmes such as Executive Education at Harvard as well as new programmes here in Nassau and in other parts of The Bahamas provide scholarships for the Career Discovery Programme.



Basically what we would love to have are young Bahamians who come to, for example, our career discovery programme for a few weeks during the summer.

This will provide them with a way to participate and enable [Harvard] to see whether we can also be involved in training the next generation of Bahamian professionals. These career discovery programmes are fully funded scholarship programmes for Bahamians and will be available for the coming years. So please bring suitable candidates to our attention.



And really this is trying to explain how the connections and connectivity, whether physical or virtual, can in some way become very important in terms of the next phase of development of the project.

We need to also learn from very specific examples. So we are keen to understand what types of projects need to be realised more quickly on site. For example, on some of the family islands, these might be schools, clinics, or even residential developments. The whole idea of what constitutes new kinds of public spaces for the citizens of those islands that also helps to stimulate economic development becomes more critical.

This is a project that has been built by one of our recent Loeb Fellows at the GSD.

It's really an example of a school that has been built for a community, another school that's been built in Burkina Faso a few years ago.

I'm just showing you these to basically demonstrate that at the community level, we can realise some of these projects. I think these projects are going to be very important. They're going to be very aspirational. It is going to be critical to realise them sooner, rather than later, so that the local community can also see their value.





This just gives you a certain sense of the timetable. Obviously I won't go through that. We can discuss that more, later during the day. We would also like to tell you who are the team members that are involved with this particular project. However, given the organisation of the day, this should be very clear. But many people have talked today about the concept of sustainable development.

Because we're called the Graduate School of Design, we don't see sustainable development as something that's dealing solely with the physical built environment. Today you see that to talk about sustainability, we really need to understand economic development, the question of marine life, the understanding of educational needs, the question of governance, and the relationship between local and state government.

We can't just deal with progress if we see progress as something which is simply the importation of new ideas and not the reflection and transformation of what we have inherited and valuing and cherishing those.

And finally there is the significant concept of the social-cultural. On one level, the project of dealing with sustainable development is a cultural issue. We can't just deal with progress if we just see it as something that is the importation of new ideas and not really the reflection and transformation of what we have inherited.

So that's really the idea, that today we will not only focus on local experts, but we will also learn to create a greater sense of teamwork and of collaboration with our moderators from Harvard. They will be engaging the speakers, but will also engage the rest of us during the remainder of the day. I hope that you find this forum productive. Please, please, please view it as something that is very informal. It is supposed to be a think tank, a kind of brainstorming session with all of us. And really, thank you all very much again for being here. Thank you.





Session 1

Resource Management

Gareth Doherty

Hi everyone. My name's Gareth Doherty. I teach at the Harvard Graduate School of Design and I work with Dean Mostafavi in leading the project. I just wanted to introduce the first panel. As you know we have four panels today. The structure is that each panel has two local experts and is moderated by faculty from Harvard. The first panel is on a very important topic, one that you know as critical to any form of sustainable planning and design, as well as resource management.

The panel is moderated by Peter Rogers, who is the Gordon McKay Professor of Environmental Engineering and Professor of City Planning at Harvard. Professor Rogers' research ranges from the impacts of global change in water resources and the development of indices of environmental and sustainable development to the interaction of land use planning and central management. Rogers has carried out extensive field and model studies on population, water and energy resources focusing on environmental problems all over the world. So, Professor Rogers will introduce the local panellists.

I also wanted to add that Minister [Kenred] Dorsett has sent his apologies that he couldn't be here today due to other business. Thank you.

Peter Rogers

Are these microphones working? Good morning ladies and gentlemen. Thank you very much for inviting me to participate in this [forum]. How's this? I'll speak a little bit closer.

This morning you've heard about frogs in boiling water and you've heard about planning to fail, etc. I thought it'd be nice to begin by saying if you don't know where you want to go, any road will get you there. I think this forum is about planning and we'd like to know where we'd like to go.

The issue of resource management is an important one. It is typically discussed for economic purposes but now increasingly for environmental sustainability and social sustainability as well, because of the interactions between water, land wastes and what it does to the basic resources of the country, particularly in a country like The Bahamas where the water is such a fragile and important component of development.

So, without further ado, let me introduce the speakers today. We have Dr. Richard Cant. Richard is an expert on geology and hydrogeology of The Bahamas. He's currently a consultant

providing advice and services to the Water and Sewerage Corporation as well as the Government of The Bahamas on geology, water resources and environmental issues.

The issue of resource management is an important one. It is typically discussed for economic purposes but now increasingly for environmental sustainability and social sustainability as well, because of the interactions between water, land wastes and what it does to the basic resources of the country, particularly in a country like The Bahamas where the water is such a fragile and important component of development.

Dr. Cant has always worked with the Bahamian Government as a hydrologist mapping out and quantifying the water resources of the major Bahamian islands.

Let me just hand over the microphone. He has some slides he's going to show. Thank you.

Richard Cant

Good morning all. I have a PowerPoint presentation and I've only got 10 minutes to talk so I'm going to be chopping along fairly fast. If anyone wants a copy of the PowerPoint I'll send it to you, if you give me an email address.

What are the early sources of water supply? I'll be talking about water resources first and then water supply. Natural sinkholes, karst features and ponds are obvious things where fresh water can be found. Based on the Land Resources Survey, we know that natural potholes were used at The Ferry, Mount Thompson, Gilbert Grant, and Steventon. Ponds and marsh areas with fresh water have been recorded in Forest, Ramsey, and Mount Thompson as well.

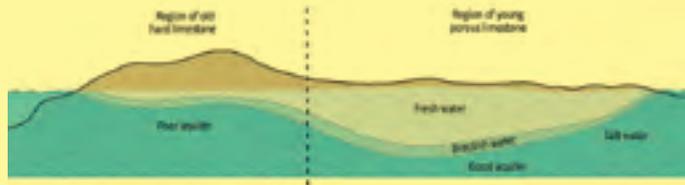


Another early source of water supply came from rainwater collection. The public/private rainwater collection facilities are very common in all of the cays.



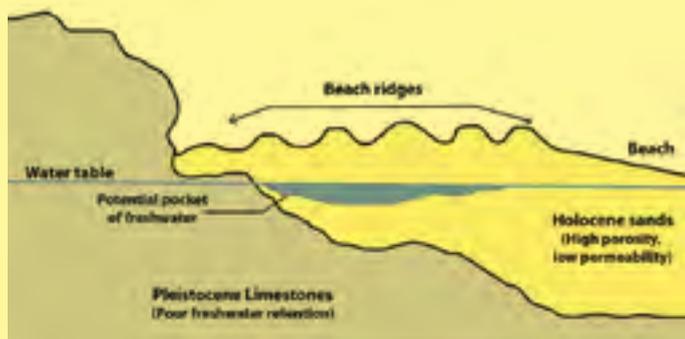
Other early sources of water supply would include shallow dug wells, which are common features in all of the old communities.

What resources do we exploit? The Bahamian freshwater lenses are called a Ghyben-Herzberg lens, named after the people who described it first.



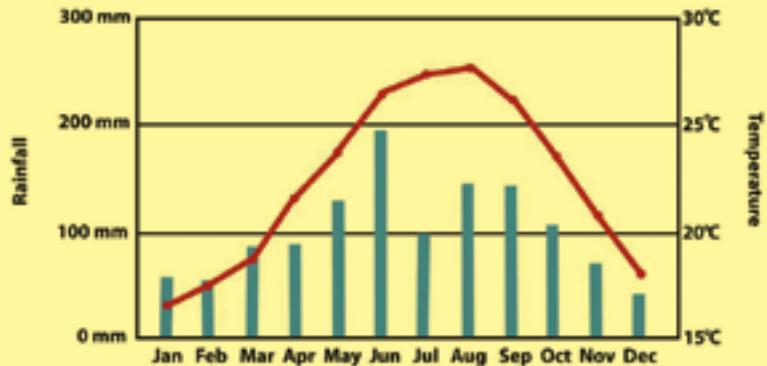
I've got a little sketch here showing you (sort of idealised) one of the long thin islands where the dunes on the ocean side tend not to be good aquifers. They are too porous.

The bank side marine deposits usually have quite good lenses as a rule, but you can see there is fresh water floating on salt water with a little brackish mix in between. These have been described in the literature all over the place.

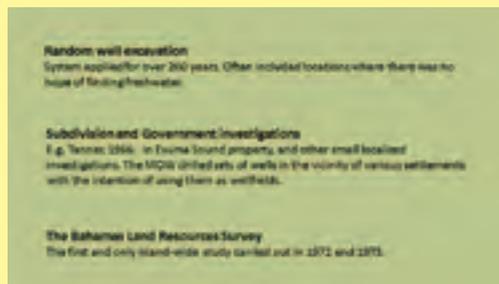


This is a horrible little sketch I've done. It's to show you where fresh water can occur on very small cays or islands with some Holocene sands.

I mention this because although the rock may not have fresh water, the sand can retain it because sand is very porous but not very permeable. And little kids have discovered freshwater resources in the past. "Daddy, I just dug a hole and there is fresh water in the sand." And of course in earlier times, the Indians that lived here would have exploited such natural resources.



Well, obviously rainwater was very important in the early days. I put this graph here just to show you that it's very seasonal, as we all know, which is a problem when you collect rainwater because in a certain time of the year, the tank goes dry. The website that I got this information from, I can give to people. It's a very good site because no matter where you are in the world, you can put the location in and you will receive the predictions of what the sea level is going to be for the next hundred years. I looked at the Exumas and it's not good. I say that now.



Well water is also under investigation. Obviously, people dug the very first wells in the ground to collect fresh water. They were just holes in the ground and they were made and used like this for a couple hundred of years. If you went and settled somewhere and you needed fresh water and the location wasn't anything like

the karst features, you went and dug a hole.

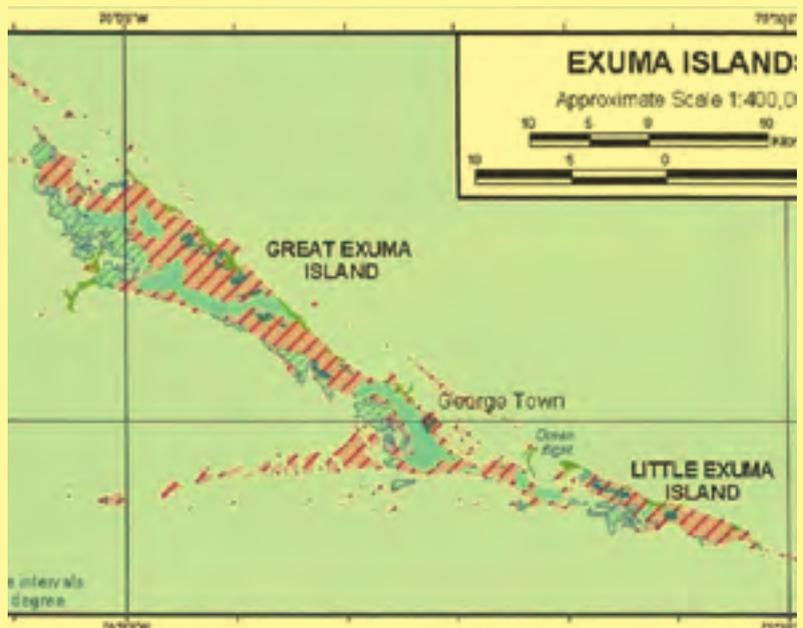
Unfortunately, we know that slaves were used to do a lot of the digging. I've seen a lot of these wells dug 30 feet deep, in hard rock, a metre across, in an area with obviously no fresh water. So that was a lot of work for nothing.

Then there was a phase where a lot of surveys were done, particularly on Great Exuma. The surveys cut up and subdivided the land in limited areas.

I'll give you an example. A guy called Tanner in 1966 did a survey of Exuma Sound. Other developers went in and just saw if there was any fresh water. They usually drilled a couple of holes.

The Ministry of Works at that time—this is before the land resources surveys—usually sent a drill rig to an island. They'd ask where the nearest fresh well was. And when someone said this is the best well here, they would then build a line of wells that were connected to the original to use as a water supply.

The Bahamas land was also surveyed back then. In fact, I was a part of a team in 1972 and 1973, which was the same time when we did Great and Little Exuma. We drilled all over the islands. We did all sorts of stuff.



I have the maps we produced from the land resources but I couldn't really put them on a PowerPoint. They're too big, you wouldn't see them. This is one from the US Army Corps of Engineers.

They took that and it's not very clear to see, but those sort of bluish bits are the good lenses.

It's mapped out in much more detail. We were working to a scale of 1:10,000. So every house is there. And we would usually do individual wells. We'd do whatever we could find and any holes that we found, including natural sinkholes. We drilled our own wells with various bits of equipment. The reports of what we did are available. People can read them. Once upon a time they were kept secret. They're not a secret anymore. So you can have them and review them but I have the maps here in case someone wants to argue about something.

Water resources investigations continued. This is Exuma, it sort of summarises everything. This is a report myself and Philip Weech did back in 1980.

On the table below, I had to write in the change in population on the top. It basically shows the main lenses in Great and Little Exuma, their maximum thickness, average thickness, and how much of the acreage could support 20 feet. At that time we reckoned if you were going to exploit a lens, you needed a depth of at least 20 feet of fresh water.

Resident population in 1976 census: 3767, in 2000: 3571, in 2010: 738
 Area in sq. miles: 112 (71488 acres)

Major freshwater lenses and other information*

Sum of Area	Max. Lens Thickness (ft)	Average Thickness (ft)	Approx Acreage Lens > 20 ft	Approx. Vol. of water in M ³ assuming 20% porosity where lens > 20 ft.
Nolleville to Durtie	36	20	797	1,931,000
Forest	47	25	2169	11,377,000
Georgetown	43	30	1802	20,732,000
Nolletons	30	22	248	2,950,000
Little Exuma	30	22	229	1,040,000
			TOTAL	42,080,000

The maximum recommended abstraction rate is 440 gal/acre.
 ∴ 2,897,840 gallons per day are available.

Groundwater lenses of only Great and Little Exuma considered. There is no data on the other islands, presumably they have no lenses greater than 20 ft. thick.

The volume that could be taken from all of them was measured in cubic metres, because that was the easiest form of measurement to use. I've said, after riding down there, that if we use the whole of Great and Little Exuma, we could get 2.89 million gallons a day. But that would mean that we'd have to use the whole island. That could only work if there was no private land and we were willing to turn the island into a big well field. You obviously can't kick out all of the people to make an entire island a well field and in point of fact, the amount of water supplied is not very much.

Island	Total Area (Total Land Area)	Isling	Vol. of Water In. in (1980) Total Land Area	Isling	Water available per Population (1970)	Isling
Abaco	.08	4	2.97	0	23,382	2
Andros	.167	5	.17	7	4,433	3
Andros	.367	3	4.47	2	23,233	2
Exuma I.	.066	28	.21	69	362	18
Ex. I. Island	.030	8	1.34	8	1,187	8
Grand Bahama	.1	8	.11	8	2,218	4
Grand Bahama	.15	7	1.34	8	458	8
Grand Bahama	.082	6	.28	8	797	12
Grand Bahama	.038	3	4.34	2	3,697	4
Grand Bahama	.05	11	.02	12	711	8
Long Island	.077	18	.08	11	664	11
Long Island	.022	11	.08	12	1,121	7
Long Island	.04	5	1.11	5	98	18

I put this in really just to get an idea, to compare it with some of the other islands from the land resources.

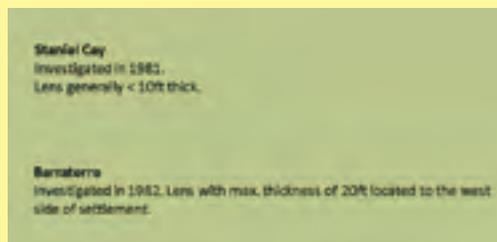
[We looked at] lens area over total land area, where it rates and where the volume of water over the total land area rates. [We also examined] water available in gallons per day to the population in 1970. Out of date for Exuma, definitely.

You'll see Exuma is in the middle sort of. Not bad. The good ones are Andros, Abaco, and Grand Bahama but they, as we all know, are the good water resource islands. That is just a quick summary so you get a feel for where Exuma stands compared to other islands.



We investigated Black Point in 1980. You'll see that there weren't many roads and my access was limited but we have since gone in there and actually continued doing some investigations. During our more recent time we mapped out the freshwater lens right by Black Point, which is now up to 20-feet thick. We actually developed a well field in it and started using it, but we will discuss that later.

We conducted subsequent investigations on Staniel Cay in 1981. At that time, the lens that households used was generally less than 10-feet thick. Nothing big enough to put a larger-scale, municipal water supply on, although some houses managed quite well.



Barraterre was investigated in 1982. The roughly 20-foot-deep lens is just on the west side of the settlement. We put in wells and ran a well field from there. But in the light of groundwater resource management we decided that depending on a lens of that size was not a good idea, it was not going to hold up, it would not be sustained.

Peter Rogers

Richard, I wonder? Can I interrupt for a moment?

Richard Cant

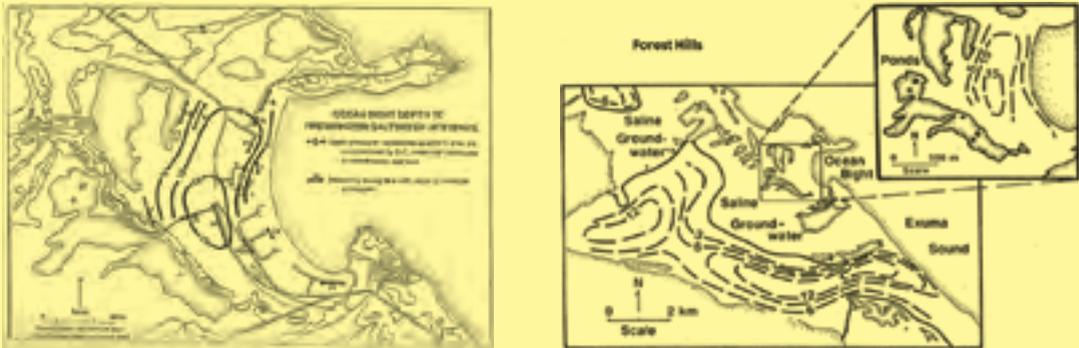
Yes, sir.

Peter Rogers

We only have a couple minutes left.

Richard Cant

I'm moving very fast. I brought this one just because it shows Ocean Bight, which is a sand aquifer. It's actually the best freshwater sand aquifer in The Bahamas.



This is a map showing it. It's in metres. You will see that it is 15 metres at Ocean Bight, compared to the big lens next door in the Forest Hills area.

Naval Base, George Town, Rolfeville, and The Forest
 The Base used a trench system and connected boreholes were used in the others. All no longer in use.

Mt. Thompson, Ramsay, Moss Town, Rolle Town, and Ocean Bight.
 These all comprised connected boreholes except Ocean Bight where shallow pits were installed. All no longer in use.

Private developments and islands, like See Stocking Island, Masha Cay, Sampson Cay, Highborne Cay, Cave Cay, and many others.
 Generally all of these rely on use of R.O. and have done so for many years.

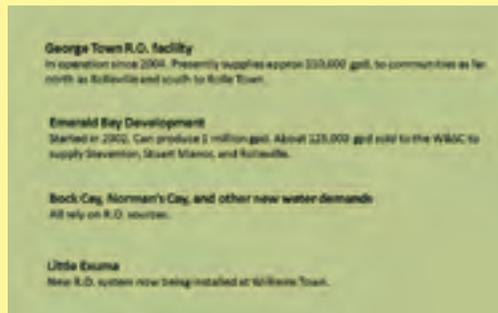
These are the first water supplies that we put in the naval base at George Town. Then after that we did these ones. Generally these wells were placed in long strings that were all tied up, and then

pumped. You'll see that they are no longer in use.

Then we have private developments in islands like Lee Stocking, Musha Cay, Sampson Cay, Highborne Cay, Cave Cay, and many others. They're all using our Reverse Osmosis (RO) system and they've done so for many years.



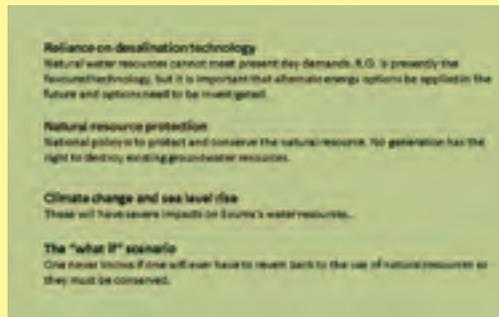
Black Point, Staniel Cay and Farmers Cay are just a few that we have. We put the water supply in Black Point in 1998, Farmers Cay in 1999, and Staniel Cay in 2004.



Now I'm talking about present-day stuff. We now have an RO facility in George Town that can do 310,000 gallons per day, it serves most of Exuma.

We also have the Emerald Bay, which is a million gallon a day plant. We buy 125,000 gallons per day from them, which we then distribute to the northern communities. Bob Cay, Normans Cay, and all these other new areas they're putting in will have RO supplies.

Exuma is one of the places where we do have good water supplies. In Williams Town, on Little Exuma, we're putting in an RO system, as I speak.



Planning for the future? The reliance on desalination is definitely there. At the moment the best method is reverse osmosis because you can do it on almost any scale. It's simple technology. Unfortunately it needs a lot of energy to run those pumps, which means if you're using seawater you need at least 800 psi plus, to function.

As far as the Water and Sewerage Corporation is concerned, we know that energy is a very big problem but we're moving towards using an alternative. In fact, we've already started. We have contracts with people in Eleuthera right now to put in alternative wind power to run our RO plants. Ultimately, all of our future RO plants are going to be energised by that.

Natural resource protection is a national policy. I say it's a national policy, I certainly hope it is, that we preserve our fresh water. [LAUGHTER] No generation has the right to destroy a resource like a freshwater lens. That's for certain.

Now, with climate change and sea level rise we have to start seriously thinking about this. I can use Andros as the best example. In the next fifty years, Andros is going to lose almost 3/4 of its fresh water. Let me say that again. This is a big freshwater island and it is going to lose three fourths of its fresh water. I say that because we've mapped out the projection of the sea level rise, where the lenses are, and that is what is going to happen.

So Exuma? A little more, well, they're not using the resource so much. It's a bit hillier. It's a little more protected from the rise. We've already had storm surges go over the biggest well fields in The Bahamas including the one in Andros and the one in Grand Bahama. They've had 8 feet of sea on top of their well fields. So we have to be very careful.

I bring up the water scenario as the last thing. We're all assuming we can do things like desalination. But what happens if we can't? There are other things to consider too: SARS, world wars, economic collapse. My point is that in the case of disasters, we might have to go back to our natural resources. So no matter what, we have to look after them as best we can.

I believe that's all. Are there any questions? I don't know when we will deal with that?

Peter Rogers We'll take the questions after the second presentation, I think.

Richard Cant Thank you. [APPLAUSE]

Peter Rogers I think it's better if we take the questions all together at the end. I'd like to introduce Thomasina Wilson, who's the Senior Deputy Director of the Department of Environmental Health Services, with the responsibility for sanitary landfill sites throughout The Bahamas.

She is responsible for the coordination of activities related to the Health Inspectorate in the Vector Control Division. She has also served as an agricultural officer and has successfully implemented a border control component for the Diseases and Insect Surveillance Unit.

With that introduction, why don't you sit here or would you prefer to go to the podium?

Thomasina Wilson Good morning ladies and gentlemen.

Voices Good morning.

Thomasina Wilson Those of you who know me know that I'm very informal. I'm a technical person so I won't sit down looking all, studenty. That's not me. [LAUGHTER] OK?

I want to talk a little bit about sustainable waste management in Exuma. I haven't been to Exuma in a while. I just came out of Abaco last Thursday. We're now doing assessments of all waste management facilities and disposal sites in all of the Family Islands.

I have just recently been given the mandate to oversee all the various landfills, the dump sites, as well as the transfer stations in some of the family islands.

So I've already completed Eleuthera and Abaco. My next stop was supposed to be Andros, but it seems like I may have to fast-forward that and do Exuma instead.

So I haven't been to Exuma in a while but based on my past experience and having dealt with the landfill that was constructed in Exuma, I can give you a basic overview of what was happening when I was there last. And based on the reports that I've been receiving, [I will review] what needs to be done in Exuma at this time.

In 1998, the Government of The Bahamas completed a solid waste management study that was funded by the Inter-American

Development Bank. As part of the loan agreement, the government was mandated to construct and develop sanitary landfills in eleven major islands, including New Providence.

Exuma was among those islands designated to receive a new disposal facility. And as such in 2003, a modified sanitary landfill was constructed on a ridge of commonage land, which was located 17 miles north of the settlement of George Town and approximately 1.5 miles off the Queen's Highway in the settlement of Steventon. So those Exumians know exactly where the landfill is and know what I'm talking about.

This facility is at an elevation, so I understand when I hear Dr. Cant talk about the freshwater lens. We were at an elevation about 36 to 50 feet above sea level. It was originally designed to accommodate approximately 3,460 tons of residential and industrial construction and bulky waste from all areas of Exuma.

The [landfill] cell itself was 150 feet wide and 150 feet long and at a depth of about 10 feet. The finished surface was lined with a bituminous coating, which is basically hot tar. So if you know how the roads are built and how impermeable a road surface can be, that's the material that was used in the cell.

This coating was used because it was what was locally available at the time, versus all the geo-membrane liners and all the other stuff that would be normally used in landfill cells. So we try to look for local material and make it cost effective as we put in a system.

We also installed at the centre what they call a leachate pipe. It's a perforated pipe with holes in it that would lead into a leachate point, which is also surfaced with the hot tar.

The decision was made to construct a modified sanitary landfill as opposed to an engineered landfill with all the related components. This was based on the study that was done in 1998. Again, like I said, we were using materials that were available locally at the time.

The term modified. I guess some of you guys are thinking what is modified? Modified is basically used to refer to an engineered landfill with environmental protection provisions and modified operation procedures for those low volume sites.

So in those remote areas we would use those kinds of modified sites, as opposed to trying to bring in a lot of heavier geo-membrane liners. Not to mention all the other engineered materials can be very costly because you'll have to be shipping them in, barging them in, and [paying for the additional costs of travel].

Generally operations at a modified sanitary landfill will include less frequent soil cover, because that's another problem we found in the Family Islands and it is always a challenge with

cover material for these sites.

We also found that it's a challenge with regards to less compaction because they are so remote. You don't have to cover as frequently as if you were in a more urban setting where you have to put daily covers over landfills.

The site in Exuma was designed to include four cells. As I said earlier, one cell was filled in 2003. It was supposed to last five years. It has now lasted nine. The reason I think we have not updated [the cell] is basically due to budgetary challenges and the funds available to construct another cell.

But I haven't been there in a while so this is all based from reports that I've been receiving. The cell is at its capacity and we need to build another one. So I would like to know if anybody in here from Exuma has been out to that site recently and has seen its condition.

As I said before, the Steventon landfill was supposed to serve "the whole" of Exuma. But we know "the whole" extends from places like Williams Town and further south. It was a long haul distance, so the government decided to put in what they call a transfer station. Those who are familiar with Exuma know where that is, near the old airport, south of George Town. The transfer station was constructed right in that vicinity.

Ultimately the way forward for the sustainability of Exuma must consider all of the activities that are presently going on in that island as well as the rate of population growth. It is important for consideration to be given to the expansion of the waste disposal facilities.

Maybe we need to consider putting either more transfer stations or even putting in another cell. Again, as I said, I cannot make a final determination until I get up there.

It is anticipated that further assessments will be conducted regarding the volumes of waste. We know that a lot of additional activities have happened in Exuma. Since 2004, when we only had Emerald Bay, a lot more activities have come on-stream.

Many more people have migrated to Exuma. So we need to look at all efforts to build sustainable developments. We also need to look into trying to minimise the amount of waste that is produced by looking at recycling programmes that will encompass all the relevant stakeholders. This means talking to the hotels, the restaurants and even the general householders. You know how we can better recycle? For instance we know we've been having a lot of problems with a lot of tires. We import a lot of tires and stuff, so I'm sure I've seen some of the pictures in my reports about tires in Exuma. All of these things need to be assessed and looked at in relevant ways to minimise the amount of waste we generate. There is a pressing need to figure out

various different recycling programmes for The Bahamas.

Peter Rogers

Thank you very much. [APPLAUSE] We have 45 minutes now for discussion and comments. You've seen two interesting presentations on specific types of aspects.

The water supply is one that Richard gave us. And Thomasina gave us the solid waste management. But there are many other aspects to these, which we haven't had presentations on. But the two presentations make way for many questions concerning wastewater disposal, the recycling of the waste, and so on. You name it.

So I'm going to open the floor for discussion. Please tell me to whom you are addressing a question so that we can get a satisfactory answer. Thank you. Questions?

Woman

Good morning. My name is Joan Rolle. I'm a very, very proud resident of Mount Thompson, Exuma. And Exuma is in my soul. It's in my spirit. And that is why I'm here today. I am also an entrepreneur. I have a business in which I am the Vice President of Experiential Education. What we do is we take children from New Providence out to various family islands and Exuma is one of our destinations.

We realise that we can talk all we want about sustainability but if the children don't understand, if they don't love The Bahamas, it's a waste of time. So that is at the core of the philosophical framework of our company.

My question is to Miss Wilson. I guess the last thing that was said, that's what I sort of focused on, was the recycling. I know the Sandals Foundation is very, very much involved in environmental conservation.

You mentioned tyres. Something that just popped into my head. We've been trying to get the school children involved in recycling, using the tyres to plant gardens. We can sort of factor that into the whole equation, if we can get the government to donate tracts of land, where they can put all the tyres they can find.

And I know about Exuma and the problems. Because on my 94-year-old aunt's land there is a cave, a hole, about as big as this room and just as deep. They throw all of their garbage in there. They throw cars in there. [LAUGHTER] You could almost throw a whole house in there. One day she almost fell in there, but that's another story.

My point is that we have whole tracts of land. We can use the tyres for recycling and teach the children how to farm.

Thomasina Wilson

Well, that is good in a way but when you said to just give tracts of

land, you wouldn't want to put all the tires there. Just go by the New Providence site and you need to see how large just one week of tyres [to know that there are too many].

But it is a good idea to get the kids to learn how to recycle using tyres as well as planting gardens. But you have to be cognizant of the size of the tyres that they would need to use, which would be more like the big payload of tyres and stuff. It needs to have more depth. At least 12 inches and they can grow a nice little garden [OVERLAPPING VOICES] in a tyre like that.

You also have to consider the mosquito breeding population. When those tyres get full of water, you can't really use them. But other than that, there are other things that kids can probably use with recycling.

For instance, there's not only the tyres. There are also pallets. They can do lots and lots and lots of stuff with pallets; with used pallets. I was trying to get a programme together with used pallets making houses, dollhouses, bedroom furniture, as well as a lot of other things. They can even build picket fences and stuff like that. So these are some of the ideas with which they can get kids involved.

I'm always willing to work with kids to show them that some of the things that other people throw out, they can use to recycle.

- Joan Rolle You fill the tyres with the soil, not water. Anyway —
- Thomasina Wilson But it can get saturated and still [breed mosquitos].
- Joan Rolle OK. And tax the Sandals Foundation. They are big on environmental conservation and kids. Thank you.
- Thomasina Wilson OK, you're welcome.
- Joan Rolle Another question or comment?
- Woman Hi, good morning. My name is Anne Rosendahl and I'm here representing a start-up company called "Junk ta New." It is a play on the word junkanoo: Junk ta New. OK?

I think this thing goes deeper. We have had an adverse problem with garbage in this country for many, many years. Most of us know that most of the garbage goes to the landfill creating hazardous toxic waste that our citizens actually breathe, because in many cases, we burn it.

So Junk ta New came about. I spent six years in a completely environmentally conscious city and nation—Stockholm, Sweden. And my kids were the ones responsible for recycling everything in our house, albeit there was always a resistance, but we are now

completely recycling and composting at my home.

So I thought to create this company where we would begin with the Ministry of Education being involved. The Ministry of Education and the government have to be involved to get this thing started from the ground up.

So we have a website that we started, that you can all go and check it out: <http://www.junktanew.org/>. One of our goals is to meet with the ministry, sit down with the government, and make it mandatory to recycle.

Composting is one thing. We're taking all the bottles. We're taking all the plastic. Plastic can be made into culets. The glass can be crushed and used as an aggregate. We've been speaking with some land paving companies that are interested in the product.

We're going to try to introduce depots where Bahamians could take all of their recyclables, bottles and cans etc. In Sweden, when we return our bottles we get a little receipt. We can then use that receipt to supplement food costs at the store when we go shopping.

So, there are ways to get people really involved and to get the kids all on board. We'd also like to have programmes in the schools wherein [the students] take some old junk and turn it into something new. For example we're using bottles to make lamps.

I think it's very, very important that we start with our young people. They are the ones who can actually encourage their parents to start recycling. Also, composting produces rich soil and there are lots of things we can do with that. With the government on board, we can make recycling mandatory. Thank you.

Thomasina Wilson

That's a good thing too. [APPLAUSE] I just want to make a comment in regards to the lady that spoke. Hopefully the government would see the importance in starting from the primary school level in composting and doing various other things to reduce waste. Because basically that's what it is. Minimising the amount of waste we produce in each household.

Once we can get our kids to do it, even at school, they would come home and then say, "Mummy, let's not throw this away. Let's not put this in a waste stream. Let's not do that." You know? So I think that is the way to go.

Man

I agree.

Peter Rogers

OK, another question?

Man

I am from the Black Point District. I heard you mention the

mainland but you've got to realise that my district consists of more than half of the Bahamian islands. In my district we have boaters that pass through every day to get to the mainland. In my district right now we're having a problem with our garbage sites, and plus with almost four to five hundred yacht boat orders everyday, we don't have any place for them to put their waste. Is there a government plan [to deal with this] in the Exuma Cays?

Thomasina Wilson

Well, when I was in Black Point last, I was doing a clean up of their disposal site. Again, like I said, I don't know what it looks like recently but I find that if the government goes in and spends money to clean up these sites, all that does is to make space for people to do the same thing over again. [LAUGHTER]

I think we need to look at doing public awareness and educational programmes [directed at informing people of the gravity of the situation]. Especially, as you said, in the Cays where it's remote and it's difficult to barge the waste to the mainland.

We really need to look at recycling and waste minimisation, to help reduce the amount of waste that winds up in the landfills because once people saturate those landfills, they call the government to come clean it up.

Absent the educational programmes in place, when the government cleans it up, the people will just put in more waste and it is circular. All this stuff doesn't have to wind up at the landfill or at your dumpsite. You can reuse some of this material. You can compost. You can recycle. Why not ask the government to bring in some containers to put recyclables into containers? It's cheapest to make one barge in and barge it out to somewhere where it can be reused as opposed to burning it and pushing it up.

I have found in my experience that in most of the sites I visit, the stuff is already burned. Burned recyclable material is of no use to anybody. They want me to clean it up, but when it is already burned, it is of no use. You know, even the balls are already burned and charred. What can you do with a burned recycled ball? So we need to look at putting public awareness programmes in place.

And then you can lead the team as the chief counselor and then separate out some of these materials and get some containers. I'm sure the boaters would provide the containers. At that point we can put the stuff in the containers and then ship it to New Providence or wherever it needs to go.

Man

Good morning. My name is Terran Rodgers. I'm an architect at the Ministry of Works and Urban Development.

I'm going to give you a scenario that I know my colleagues

would love to have. I'm going to give you a blank cheque.
[LAUGHTER] And I'm going to ask you to speak to this blank cheque dealing with the sustainability of the Exumas.

We're talking about planning. So I'm giving you a blank cheque and I want you to speak to all the things that you think that can be done and that needs to be done to cultivate a better environment and more efficient waste management.

- Thomasina Wilson What needs to be done?
- Terran Rodgers Specifically waste management.
- Thomasina Wilson What needs to be done with waste management?
- Terran Rodgers You have a blank cheque and you can do anything and everything you need to do to make this thing work and happen.
- Thomasina Wilson Well, the first thing I would do with a blank check would be to use the money towards recycling and waste minimisation. And the whole cheque would probably be written out to deal with that.
 That money would affect all other components. We'd separate the materials that we have at the source and create areas that you could then take various recyclable materials. That's what I would do with the blank check.
- Woman OK, it's about the question. I'm Gloria Brown from ABC Yacht Services. I'm speaking about the yachts that pass through Black Point. I think you need to charge them. If they're giving you their waste you have to get it from Black Point. So you have to charge them to collect their waste.
- Thomasina Wilson And that can go a long way with helping with the --
- Woman Cheque.
- Thomasina Wilson Recycling efforts and getting the components that you need in place in order to be able to deal with it.
- Gloria Brown And also with that blank cheque, I think you need to take a little portion of it and try to educate people.
- Thomasina Wilson The public awareness.
- Gloria Brown Put public awareness and education [at the forefront].
- Thomasina Wilson Yes.





Peter Rogers

Richard had a comment on the earlier question.

Richard Cant

Yes, the blank cheque that we'd all like to have. [LAUGHTER] We haven't touched on waste effluence, and sewerage particularly. And as you know, only 20% in New Providence has sewerage and none in Exuma except for Emerald Bay itself.

A blank cheque when you deal with sewerage. Obviously George Town could be better served with a proper system of collection, treatment and disposal. And you could extend that out through Hoopers Bay into certain areas. But even with a blank cheque you get to the more remote little communities, the odd house here, the odd house there. You can hardly collect that sewerage if it's in such a small place.

And even when we've had the best in the world come to look at the sewerage problem in The Bahamas, they tend to walk away shaking their heads.

We've had all sorts of people who've come to help that problem and they haven't. So what we can really do though is to make sure what we do is done properly and that obviously starts with septic tanks. We have to make sure the building code is as good as it can be and that we have inspectors that can ensure it's done properly.

We have the proper effluent drain fields but you need more wells if necessary. I'm just saying that with a blank cheque we'd sewer up George Town, but we'd still have to work on a system for the smaller communities. Of course a big fancy development comes and there have been many talked about, not just Emerald Bay area, but other parts of Exuma as well. I've looked at so many [developments] I've got confused now, but we've made them do it.

Also, if you put in a marina, you've got to have pump out treatment facilities. This is what you do with a blank cheque. And this is basically what our policy is. But you know we don't have the blank cheque.

Woman

Write it. [LAUGHTER]

Eric Carey

We have a question here.

Woman

I'm Eleanor Phillips with the Nature Conservancy. Just a quick comment and I think Dr. Earl Deveaux is still in the room. Eric [Carey] was therewhen we had breakfast at the dumpsite. It was one of the best-managed dumpsites I'd ever been to, bar none. I think we have a great example with that particular location and site. We should look to Man-O-War and replicate its operating and management practices for other dumps and refuses.

I want to say congratulations to Aaron for starting his Recycle Bahamas initiative. I'm hoping that it really grows some legs and starts to run. It's something that we desperately need in this country.

But I think we need to look at some of the good examples. I know Man-O-War was one of those and I have personally been there. [OVERLAPPING VOICES]

Thomasina Wilson Man-O-War site is almost like going to a park. You just happen to have a few containers. They recycle right down to wine bottles. They put them back in boxes. And they have everything separated out. You know what I mean?

So even the waste, there is very little because it seems that those people compost, they do everything, they are environmentally conscious. It's as [Eleanor] said, it is like walking in the park, going to the Man-O-War Cay site. Actually, the whole town is kind of like that as well.

Peter Rogers OK, do you have a microphone?

Woman Yes, I do. I just have one small question. You're talking a lot about recycling initiatives and that Junk ta New initiative is a really exciting business. But I was wondering why it is every time I hear about recycling in The Bahamas, the conclusion that I get from the government is that it is not financially feasible?

Is there any plan from the Department of Environmental Health or any division of the government responsible for that to actually just admit that it is a problem that we have to deal with and so we need to just suck it up and pay the cost?

Recycling can start from home ...

Recycling can start small. It can start in small communities.

Recycling also comes with reuse, it creates jobs ...

Thomasina Wilson Recycling can start from home. You know, everybody always looks for the government to put in this big amount of money to do a recycling programme. Yeah, it creates jobs and stuff like that but recycling can start small. It can start in small communities. A community can get together and say OK, here is a vacant piece of land. Then they find out who owns it. [The Department of Environmental Health Services] would build a little recycling facility on that, to keep the bushes down, to keep vagrants from being there.

So these are small things that can happen in a community. It

doesn't always have to be led by the government. Because leading by the government means plenty of money going forth, you know?

So it starts with the community and recycling also means reuse. Things that I may throw out you may need. So if we get an area or a vacant land and we put in a recycling and reuse facility, you may decide, "OK, I'm going to change out my old windows." But then you have somebody who needs some windows. You see what I'm saying?

So all of that is part of recycling different things. Like I said, this can start small and then just branch out and grow to where it needs to go. And maybe the government will then jump in and say well, we will add something to this initiative. You know it? But it has to start small.

Man

I have a comment more than a question. I am Michael Pateman, the archaeologist for Antiquities Monuments. A few years ago we did a project through National Geographic and other foundations where we explored a lot of the blue holes in the country.

Let me just tell you, they're dumps. We have an out of site, out of mind culture in The Bahamas where if it's a hole, we throw it in. I could give you an example of Rock Sound, Eleuthera, where the ocean hole is a pride of the community. But you don't even want to know what's in there.

But my comment is more on the whole education aspect that keeps coming up. As part of this programme we went in and educated several communities. And you don't know how many residents said to us that they didn't know or that they were so happy that a governmental agency was coming in, as part of a project, and educating communities.

A big criticism that they tended to level on New Providence is that we come in, we evaluate, we speak to the local government, but we don't educate the locals.

So for all of my other governmental colleagues in here, when you travel to the Family Islands try—and I know we go and we're so busy and we rush out—but try to find the time to also educate the locals because we're talking about sustainability and it won't work without education. So I hope there's a big education component in this whole project.

Peter Rogers

Any more questions?

Woman

I'm at the Ministry of Tourism and I worked in Exuma for several years. And people have been talking about getting recycling started. I just want to say that they have started recycling in Exuma. The Waste Management Company has bins throughout

the islands and they're identified for bottles, and for this and that. So that is on-going as we speak.

To further talk about sustainability the gentleman, Dr. Pateman, said that unless we really get the local people involved, it is not going to be sustainable.

In fact when I heard about this meeting, which was just late yesterday, and I assumed it was in Exuma. So I sent the note to my staff and said well, I imagine you would be attending.

And because I didn't read it fully she said it's at the College of The Bahamas. At that point I said that I think we need to have more of these kinds of forums, educating the people on the ground so that these things can be sustained. Otherwise we will be going around in circles.

Somebody talked about the yachters and the cruise boats. There is a programme that was started in Exuma and they now have a pump out station and there is a boat that goes out to the yachts and they pump the sewerage out and they take it to the site. So there are some things happening already. I just wanted to bring that to your attention.

Man

Hi, my name is Glen Davis. I'm a chairman for the local government on the main island of Exuma. Listening to Dr. Cant speak about the importance of water during a natural disaster, I think some of that should be put in place for those people who sell batteries.

So when you bring a battery in, you should get some kind of discount. This will encourage people to bring their batteries in because a lot of times you see them laying all over the place after people change them.

Woman

But who has a direct response?

Thomasina Wilson

Yes, that's part of the waste management efforts. Batteries and tyres are one of the problems that we have. And people tend to discard anything. It is what they call the "not in my backyard" (NIMBY) syndrome. Where as long as they can't see it, you know it's not a problem for them. It's somebody else's problem.

So you are right. We see a lot of batteries. We see a lot of tyres. We see a lot of almost everything. We see a lot of mattresses, fridges and stoves. And sometimes when I pass even in the Family Islands, as well as New Providence, and I'm driving along, I imagine what would happen if only these things could only grow legs and go back to their owner. I bet you would be surprised to know who the owner of these things was, you know?

You go through any trackside road or anything you can find lots of discarded stuff that was once somebody's possession. So

the question is, how did it get there? You know what I mean?

If the battery would just pick up legs and get back to the car that it came out of, you'd be surprised to know whose car that came out of; they probably just opened the door and tossed it out.

Same thing with a mattress, a stove, a microwave, or a fridge; you know what I mean? These are the things that we need to now bring together in public awareness and it is exactly like what the lady was saying about teaching people from the ground up. It's about getting people involved. What we find is it's almost like trying to teach an old dog new tricks. People, they will listen to you. They will go along with you but then they will still do what they have to do, regardless.

Then you realise that you know the person. You think about this seminar. You ask yourself, weren't you talking about sustainability just last week? So why are you here dumping this now? You know what I mean? These are the challenges that we have on a daily basis.

Earl D. Deveaux

Thank you very much. Dr. Cant, I'm still recovering from your apocalyptic prediction for my home island of Andros. So please, I would like you, if you don't mind, to give some indication as to what mitigation could be possible. Or is what you have described a fate we should just look forward to in fifty years?

But before you answer that I thought the example of Sweden, with respect to waste management, holds a lot of lessons. And I know that in Hope Town and Man-O-War, as Eleanor indicated, we have a successful template in place. In fact, those two barrier islands essentially do everything described that happens in Sweden. If we can catalogue that template and make it available to other local government authorities, I believe the issue of addressing waste management in The Bahamas could make a tremendous leap forward. But, please tell me how you're going to save Andros?

Richard Cant

Yeah, the Andros thing, my comments are based on the more recent predictions of sea level rise. Those predictions are constantly changing. Unfortunately they generally change for the worse. The rise is more than they said it would be a while ago, and it is happening at a faster pace. Be that as it may, the time frame they're now talking about is by the end of the century. They're now predicting about a 5-foot, sea level rise. Now, if you put five more feet of seawater on Andros, vast areas that are already wetlands will become open bodies of water. The problem that we have to look at is not just Andros's alone. We also need to worry about New Providence. When sea level comes up, it's not coming in charging over the ocean at us. It's coming up subtly,

under our feet. For instance, look at Lake Killarney and then add a few feet to the sea level. The airport would be gone. You can't put a barrier around one of these islands because then you would have to pump. And you can't do that. I don't think anyone could pump that much. I mean, in places like Holland, as we know, they have barriers. However, they don't have our porous aquifer. The problem is that we're living on a porous aquifer.

At the moment, quite a few people want to do certain projects, like mining rock. One of the first things I look at is whether or not the area being assessed is a high-elevated area. But the fact is that if you are mining it might be better to mine in the sea or something like that. [Laughing] I'm just saying, don't come and mine an oceanic island.

Now for Andros, you know we're looking at funding. Unfortunately the money for this comes from the big nations in the world. They will want to make sure you are cutting your carbon content. Mitigation they call it. Not adaptation. Our concern here in The Bahamas is that we're not really creating much in the way of waste carbon, but we need to have adaptation to it.

And I tried to get funding for a project because as I said we [believe that we] know what the precipitation is going to be. It's frequently projected. I don't know how accurately they do that. I have no idea. It amazes me what they say, but I know the projections don't look good when I look at them.

They give us projections of sea level rise and they give us even temperature variations. So I'm just saying that in The Bahamas we know that we can go to an island and know exactly what is the water table. This is the temperature. This is the rainfall. This is what you get.

You can take that model all around The Bahamas and place it fifty years in the future in Andros. And you project this is what we're going to have in fifty years in Andros and plan around that and adapt around that. That's the way I think of it. Of course we can't get funding for this because mitigation is number one.

Peter Rogers

Do you want to comment?

Man

Good morning everybody. My name is Chris Maxey and I am proud to represent the Deep Creek Middle School and the Island School and the Cape Eleuthera Institute.

We're neighbours across the Exuma Sound so it's great to be here. It has been a really exciting conversation. We're a community of a little less than 100 people, maybe swelling during the day to 120.

We have a zero waste policy and a carbon balance policy that has lasted about four years now. I could talk a lot about

waste, but what I'd like to do is stay focused on the concept that we need to change the idea to resource.

When we started, we built a leach away septic plan, which is a traditional way to do things. We were poisoning the aquifer and because of our location we were literally dumping waste on the reefs that we were trying to conserve. So we were living hypocritically.

Since then we've developed the constructive wetland plan. And in place in the centre of our campus—the most beautiful place on our campus—is actually our waste management garden.

We call it our “poo-poo” garden. And we're proud to say that every time we flush a toilet at the Island School, a flower blooms in our garden. [LAUGHTER]

The challenge and the last chapter in this specific story, which is really exciting, is that we still had to deal with the solid waste. I'm doing this before lunch, this conversation. Sorry.

So we had a truck come in and we didn't know where it went. Probably to one of these open dumps on the island. What we've done to date has been done with the help of young students, doing high school age research. Two years went into developing a bio-digester, which is now functioning.

It's producing 4 cubic metres of methane gas and high nutrient liquid for our gardens. That methane gas is going to replace all of our propane use for not only our campus but every apartment that we rent in Deep Creek.

So there is real value and I use the word “resource.” There is real value in these waste streams. You don't have to have a blank check. The bottom line is that we can make it work. So thank you very much. [APPLAUSE]

Woman

Good morning. Oh, sorry.

Man

Good morning. Henry Hepburn. My colleague is over there. Sorry about that. I'm an architect and urban planner. I'm lecturing here at the College of The Bahamas.

We are talking about sustainable futures. My question is and I'd like to know do you have collaboration between yourself, Miss Wilson and Richard? I ask because as we know, waste and water does go together.

And there needs to be that sort of collaboration so I'd like for you all to address that. But before you do that, I heard Richard talking about RO. I'd like for you, Richard, to address the negative impacts of that for us please. Thank you.

Richard Cant

Yes, thank you. Well we all know that RO can take, we're using salt water RO as a rule because our brackish water resources are

probably scarcer than our fresh. We only call them brackish in large volumes when we've destroyed the fresh.

When it comes to the seawater, we use deep wells to obtain clean seawater. So it's not out of the sea. You don't have all the living organisms that you might get otherwise. Then we put the waste brines back into the ground.

Now I already mentioned that the problem with reverse osmosis is the higher energy costs. We know that. We need to deal with that with alternative energy and The Bahamas is full of options for that, which is going to put our heads together, find the funding and do it. Once you've done it, it's cheap.

Let me just say now in deep wells it's a different subject completely and I've produced a lot of documents on that. Published some. And recently I've been going into that in a lot more detail because everyone is saying, what are you doing?

I want to be very brief here because we have a lot of other things to address. The Bahamas has unique geology. What you may learn in a continental area doesn't translate here because it's completely and utterly different.

I've yet to meet anyone, the nearest is southeast Florida, where they use deep wells, but they put it way down under high pressure and they have problems with fractures down at that horizon.

But we have done it successfully for example on Blue Hills, where they use water for their turbines. For forty years now, BEC—or whoever the electrical company was back then—has taken 20 million gallons a day of seawater and cooled down their turbines and put it right back in the ground at a slightly different depth. It is slightly deeper.

That has happened. They've done that successfully. There has been no temperature cross going on for twenty years. This is because of the rise in sea levels and cabin developments and as I've said, our geology is different.

Even the Pacific atolls don't have it. They have a volcanic core. But here, we dig down more than 5 miles and we hit limestone and evaporate deposits. [You don't see that many other places.] Nobody else has that. As I always say, [The Bahamas are] unique.

So the thinking has to be our own. We have to look at it and we have to test it and we are very willing to work with anyone who wants to come in and fund evaluations because we've been doing our own.

In 1974, I was doing test wells, putting dyes down and looking for it. It just disappeared. Put tons of this stuff down. It just disappeared.

Now we know what the problems and the threats are

abundant. It's been written up and published.

We had the Caribbean Water and Wastewater Association (CWWA) meeting recently. I presented a paper on it because of these deep wells with our reverse geothermal gradient; we have options of Ocean Thermal Energy Conversion (OTEC) from the ground.

We also have seawater districts cooling from the ground. Not in the ocean. You don't have to go and mess with your reefs and stuff like that. You can go in the ground.

I just say all this because I'm too long winded on it and I apologise. The whole issue has been very carefully looked at. And not just by me but the best in the world. In fact one person that reviewed this is a guy in Florida who is actually one of the people who gave birth to that technology. Anyone who can teach us more is very welcome to sit down all day and talk about this with me. Thank you.

Thomasina Wilson

To further add to what Dr. Cant is saying that we do from time to time is collaborate on wastewater and waste management. Although, I do think we need to talk more between the two agencies. Most of the time we get together is when we have the CWWA conferences where we've been trying to unite the waste management aspect with the water and wastewater aspects. Sometimes we don't always get it to come together but hopefully in the future we will be seeing the importance of these two functions. We need to generate more talks and discussions and come together because we do overlap to a certain extent.

For instance the waste sludge can be used as part of our waste management aspects. So I know at one point Water and Sewerage wanted to transfer their dried sludge to us so we could add it to our compost beds and stuff. But that never got off the ground. So I think now we need to come together a little bit more and collaborate our efforts because in some aspects, we are overlapping.

Woman

Good morning, I am Lisa Benjamin from the College of The Bahamas. I'll be very brief. Dr. Cant, thank you so much for two things that you said. One is the alternative energy RO that water and sewerage is looking at. And second is the preservation of the well fields and the natural resources, particularly in Andros. I think this is going to be critical for us in the future.

I wanted to mention the education on the dump. There are a couple of mothers who have kids at a school that are very close to the dump and they're starting to do a documentary about the dump in Nassau.

So I think anyone who wants to use that as an educational

tool, would be well served. I think we all know about it. We all smell it when it burns. But to actually see it in a documentary, I think is a really good educational tool.

The second comment I have is about waste management. The plan for Exuma is going to have to connect to national policy issues. Although we need to reuse and recycle there will always be waste. And we are a huge importer of goods and products that come with plastic and Styrofoam.

At the national level we need to start to think about how we're going to deal with waste economically. The government has to consider a disposal fee for importation of these goods.

Now unfortunately that may be passed on to consumers, and food is already expensive, but I think national policy issues are where you can generate revenue to deal with waste. These issues are going to have to be an important consideration for us in the future.

Thomasina Wilson

The whole aspect of a disposal fee is on the books. It has just not been brought forward as of yet. I think we're now trying to resurrect it and look at it.

Because like you just said, we import a lot of non-biodegradable items. So maybe we need to now look at charging that disposal fee for when they get rid of these things, we have some way or some funds available to be able to deal with its disposal.

Ladies and gentlemen, this is our last question for this session because we have to move on to the other one.

Woman

Good morning. My name is Latonya Williams. I work for The Bahamas National Trust at the Retreat Gardens on Village Road.

My question is for Mrs. Wilson. You spoke about the landfills. I wanted to know what determines how suitable the site is for a landfill?

I'm curious simply because I visited Abaco a few weeks ago. I don't know if you're familiar with the old growth forests in north Abaco, where the forest and the trees were never logged? There was a plan for a landfill to be sort of in the middle of the pine forest. [OVERLAPPING VOICES]

It was in the middle of the forest. So I just wanted to know again what determines how suitable the site is for a landfill?

Thomasina Wilson

OK, the suitable sites for a landfill have to be on anywhere from 20 feet and above elevation. We basically look for hills to put landfills. You know people would probably say they look at hills for mining and for quarrying, but the higher you are up from the water table, the better a site selection for a landfill.

Between 1995 and 1998 or 1999, we did extensive studies on locations for landfills. We also considered central waste evaluations to assess where we were going to put the landfills, versus transfer stations.

Now I know you said the transfer station is in the middle of the forest but that is a transfer station. That is not a disposal site. So waste would not be buried there. It's relatively flat. It's remote but it is also a centroid from the location of Cherokee [Sound]. [Does] it come into Cherokee from Spring Point?

Voice

Cedar Harbour.

Thomasina Wilson

It comes in from Cedar Harbour. But in any event, transfer stations are not disposal sites, so we won't impact the ground level or be burying waste at the transfer station.

We do that at landfills and most of our landfills are on ridges of land. That's why it was so difficult in Exuma to find a ridge of land that we could use. I was in battle with the Commonage Committee trying to ask for a 75-foot elevation on which we could build that landfill.

The same thing is in Eleuthera. You're elevated 75 feet. That is the lowest footage we have for all our landfills in New Providence. But New Providence is particularly flat. Our landfill in New Providence is only about 4 feet from the water table. Everywhere else is at least 20 to 30 feet.

So, to answer your question, what you would see in the forest is a transfer station, moving things back and forth. [OVERLAPPING VOICES]

Peter Rogers

I think we could go on for another half an hour with this discussion. It was very interesting and it wasn't quite as heated as I expected it would be, but certainly I'd like to ask you to join me in thanking the presenters for this morning. [APPLAUSE]







Session 2

Economic Development

Rochelle Newbold

We will be reconvening in 30 seconds. Would everybody please take your seats? Ladies and gentlemen, as we wrapped up the first session, there were two very critical questions that were posed but were not able to be aired. They had to do with the amount of hazardous waste that's being generated in the country by virtue of electronics, medical waste and other means. That is an issue that we will need to address. The second question was related to the issue that Dr. Cant brought up having to do with international funding being made available for adaptation versus mitigation. The point that was posed by the individual was based on the fact that The Bahamas needs to ensure that it is duly represented at the international level when decisions are made regarding where funding should be directed. It is felt that the government may not consider this a critical rule, as they think that it may be utilised for personal/local reasons, rather than for issues of national importance. So those were the two points that were laid on the floor and will be covered in the report once it comes out. Thank you.

Gareth Doherty

So, we're almost on schedule. Our next panel is on economic development, which will be moderated by Professor Rema Hanna of the Harvard Kennedy School. Professor Hanna is an associate professor of public policy and a member of the Evidence for Policy Design Research Programme at the Centre for International Development at Harvard. She's also a research associate at the National Bureau of Economic Research, and an affiliate of the Bureau for Research and Economic Analysis of Development. Her research focuses on how to improve the provision of public services and implications of environmental policy on households in developing countries. So, thank you very much.

Rema Hanna

Great, thank you for having me here today. I know that our session stands between lunch and a sunny day, so we'll hopefully keep the discussion quite interesting. I'm very excited to be here, to be moderating this session. In some ways, we often think that there's a trade-off between economic development and environmental sustainability. So it's nice to be here to have a serious conversation about how we can promote economic growth. How can we promote employment generation, while at

the same time not sacrificing natural resources? And so to this end, I'm going to turn it over to the experts.

We'll start with Reginald Smith. Mr. Smith in some ways needs no introduction. He was with the Broadcasting Corporation of The Bahamas for ten years. He was an administrative director of the Grand Bahama Island Promotion Board and regional director of sales and marketing for Princess Hotels International for sixteen years. He is an Exuma native and was away for a while, but has been back for almost ten years and is very active in promoting economic and social growth through the Chamber of Commerce. So I'll turn it over to you, Mr. Smith.

Reginald Smith

Thank you. Good morning, everybody. After the last session, it's scary to stand up and talk, because after my friend, [Dr. Richard] Cant said that 5 feet of water is coming up under our feet, it's kind of scary. So with that in mind, I'm still going to say what I intended to say about sustainable economic development in Exuma. I'm also going to make an excuse right at the outset that I'm probably not going to talk very much about the Cays, because I believe that the Cays are on a path that's a little bit ahead of the mainland, and that we have some serious problems facing us on mainland Exuma that we need to address. How do we build mainland Exuma? That's what I'm going to try to speak to.

Distinguished guests, ladies and gentlemen, I would like to first thank the organising partners for affording me the opportunity to be here as we look to the future of Exuma. In preparing this presentation, I spoke to as many people as I could to get a consensus of where we want to go.

It has been said that a sustainable future is not a fixed destination in time, but an ever changing landscape capable of adjusting to new threats and challenges, through product and process innovations, leading to an entirely new experience curve.

It has been said that a sustainable future is not a fixed destination in time, but an ever-changing landscape capable of adjusting to new threats and challenges, through product and process innovations, leading to an entirely new experience curve. It calls for greater understanding of our present surroundings and the processes that will ultimately shape that future. It asks that we appreciate the underpinnings of our present culture and it leads us to chart an achievable path to get there. As Anthony Carnevale, Director of the Georgetown

University Centre on Education and the Workforce once explained, all the data says the same thing: if you know where you're going, you're likely to get there. So I asked the question this morning, where are we going? And what path do we follow to a sustainable future for Exuma?

Our approach must contain a strategic view of sustainability itself, one that demonstrates to the average Exumian the importance of sustainability in making sure that we have and will continue to have the water, materials, and the resources necessary to protect human health and the environment. To this end, a myriad of challenges are facing Exuma. We must therefore establish policies at the civic and governmental level that ensure the sustainability of Exuma as a major tourist destination, with strong ties to agriculture and fisheries, and a high regard for the rule of law. A restructured and empowered local government that understands its role and is vested in supporting local business growth is all-important to setting us on this path. Island Administrator, Theophilus Cox, will speak to these issues later.

There is an urgent need for comprehensive restructuring of the farming and agriculture processes that takes advantage of the huge amount of land held in common. These lands could be put to use producing crops for local consumption, as well as export.

A brief review of Exuma's history will show that the island, which once led The Bahamas in production of onions and other produce, now struggles to bring in any appreciable crops. Former farmlands have been turned into housing developments and the farms that are left are small and inefficient, prone to punishing droughts or destructive flooding. There is an urgent need for comprehensive restructuring of the farming and agriculture processes that take advantage of the huge amount of land held in common that could be put to use producing crops for local consumption, as well as for export.

Present fishing methods are antiquated and inefficient. Many local fishermen, for instance, still fish for red snapper using hand line techniques. There is a need for programmes to assist local fishermen in learning new catch techniques, while at the same time introducing them to the need for conservation. Catch limits will have to be set and then monitored to ensure that regulations are being enforced. When properly organised, fishing can become a thriving industry where seafood catches are

purchased and stored in good weather, ensuring that there is a consistent supply when fishing conditions deteriorate. This would greatly enhance the ability of the local hotels and restaurants to offer fresh seafood on a consistent basis. We must manage these resources, since studies have shown that in order to have a sustainable yield, the rate of harvest should not exceed the rate of regeneration.

George Town, the capital of Exuma, is in dire need of major planning and restructuring to enhance its natural beauty and to support a vital but struggling business community. It sits at the southern end of the annual winter cruise trajectory for most sail boaters in the region and continues to attract a growing fleet. Upwards of 300 yachts make Elizabeth Harbour their home from October through the end of April. While this hardy group has made some contribution to the community, we have yet to mine the vast opportunities that present themselves to us.

A sustainable future for Exuma calls for major investment in infrastructure. For example, the construction and operation of an inner harbour at Regatta Point would change the face of George Town and give access to the many yachts that are now forced to anchor on Stocking Island. Dredging Kid Cove and allowing for state of the art marinas between Regatta Point and Peace and Plenty, together with an expanded mooring field, would bring millions of dollars of new revenues injected directly into the town's businesses. Doing this responsibly and aesthetically would increase Exuma's revenue potential by allowing for the launching and marketing of a new destination aimed at the lucrative yachting market.

Catherine Booker, the marine scientist who now makes Exuma home says that the health of Exuma's coastal and marine environments are critical to the sustainability of its future. The risk of losing these natural resources through irresponsible development in the Exumas would squander an opportunity to create one of the premier examples of sustainable tourism in the world. It would also lose the natural heritage for future generations to enjoy. Exuma, she says, stands to gain so much more by developing responsibly. Town planners must consider the creation of a new commercial business section at the naval base. Construction of a new hospital in that location has already signalled where any expansion of the town will take place. We must add a new administrative complex, as well as a fire station, improved police station, and a central primary school, all very necessary to our sustainability. Relocating the weekly supply vessels to a new port at the naval base has been recommended and should be completed, bringing additional revenue and increasing the efficiency of the commercial port, while

facilitating the redevelopment of downtown George Town into a multifaceted demand destination. Marine scientists who have been working on saving the environment in both Elizabeth Harbour and Lake Victoria agree that we have the capability and the technology to develop these locations in this manner without destroying sustainability. Concomitant with all this is the absolute necessity of developing the essential skills to manage a new and improved economy.

We believe education and training, then, becomes the only avenue by which we should approach this sustainability. With the College of The Bahamas moving to university status, Exumians see the need for a full blown curriculum here that would attract both local and international students, with all the ramifications that a college town brings to bear: housing, food and beverage, transportation, and travel [to list a few]. Yet there continues to be a need for hands on training for professional certificates as well as degree programmes and the establishment of organisations such as the [Bahamas Technical and Vocational Institute (BTVI)] on Exuma. Education must produce usable skills that are needed in the jobs market. We must set standards in the various trades, so that the level of services can be raised across the board while developing programmes that would attract 30 and 40 year olds back into the classroom to learn and be certified in new skills. According to the local Department of Labour in Exuma, Exuma has a resident labour force of approximately 3,500 persons between the ages of eighteen and eighty. We will need to examine and identify needed increases in that workforce.

A sustainable Exuma calls for the development of a business model for the individual communities based on the specific natural attributes of each community.

But there is also another side to this, which includes encouraging the native Exumian or native Bahamian who moves there to get involved in business, and to learn a more hands on approach to developing a business. Ken Bowe, an established business owner of [the restaurant] Chat 'N' Chill, believes that in order to have sustainability, Exumians must first understand the process that created the opportunity. He points to the work of economist Theodore Levitt, who said that the business of business is not to just make a profit, but to satisfy the needs of the customers. Mr. Bowe further suggests that we create more mentors in the business community and bring more persons with

knowledge of the process into the civil and political arenas.

Finally, a sustainable Exuma calls for the development of a business model based on the natural attributes of these specific communities. One of the things that I really believe we have neglected in our country is the individual community. We've allowed our [unique communities] to die. We've allowed the culture to go away. We've not created opportunities to keep people at home. When you ride across Great Exuma, from Williams Town to Barraterre, you get that feeling. There are thirteen communities on Great Exuma including Williams Town and Barraterre, each with distinctive opportunities for tourism development. These communities beg for smart development, driven by their natural attributes, and these communities are themselves attractions. We must develop the models and then provide the access. For example, most cruises, ever in need of fresh fruits and vegetables, fresh bread and other goods and services, never venture outside of George Town; they can't get there.

Opportunities to reap these low hanging fruit have been overlooked. Ken Bowe, again, owner of Chat 'N' Chill on Stocking Island, reckons that the sale of freshly baked bread and pastries alone could bring someone approximately \$1,500 a week. Supplying pigs for his weekly barbeque roast means importing pigs that should be grown locally. We must encourage these communities to explore their diverse potential. We've just left them out there. But we'll talk a little bit more about that when we have the discussion.

As we further refine and expand our tourism base, there may no longer be a need for additional large-scale, multifaceted, anchor resort projects on Exuma. Instead, boutique style, smaller resorts, like the recently refurbished Exuma Beach Resort, that is conversant with smart growth, coupled with B&Bs and residence rentals, would not only provide adequate housing for developmental needs, but would also bring indigenous Bahamians closer to real ownership of our tourism industry. This can be seen in developments like Exuma Point and Shoreline Beach Club in Rolleville and Gray's Cottages in Williams Town. A small convention facility with a state of the art communications capability, working with these hotels for small meetings, might also be considered. Given the infrastructure and the development of a strong, well-educated and trained professional workforce, we will see Exuma attracting new foreign direct [investment], while also bringing home [and keeping home] many indigenous Exumians and other Bahamians by providing them with additional skills. This process will produce a new crop of entrepreneurs, who are able to envision the future and are

After grade nine, at the age of thirteen or so, students leave to go live with family members in Nassau, in order to go to school and they end up staying there for jobs. This has been the process over the years. Very few young people stay here. So, in their formative years, when they need us and our parental guidance most, they end up leaving, which of course means that no one can help them or guide them in their important years.

We have no young men, only five to ten men who are skilled, but most young men here are not skilled – then there are men coming from Nassau to take the skilled jobs. This is unique to Exuma, our hands are tied because we have no skilled men.

equipped with the knowledge to see opportunities. With proper planning and a strong leadership, a sustainable future for Exuma is not only achievable but also ensured. If we know where we're going, we're more likely to get there. Thank you for listening, and I look forward to the discussion. [APPLAUSE]

Rema Hanna

Thank you. So next I'd like to introduce Franklyn Wilson. Mr. Wilson serves as the chairman of Sunshine Holdings, a company of Sunshine Insurance. He is formerly the managing partner of Deloitte and Touche, and chairman of the Council of the College of The Bahamas. I'd like to turn it over to you now.

Franklyn Wilson

Thank you very much. I too regard it as a privilege to have been invited to speak here today. When I go to meetings like this, when I hear [Reginald Smith] speak and I hear the passion, trust me, I understand every word. To give this group a little context for my remarks, let me say two things. I know very little about Exuma, so I can't really speak to what Exuma needs, but I do have a sense of The Bahamas and I do know Eleuthera well. I think the challenges are not too dissimilar.

Ladies and gentlemen, I am 65 years old. I have spent twenty-eight of those years attempting to do a development at Eleuthera. Twenty-eight years! Now, it has nothing to do with foreigners, because let me tell you something. That's an interesting point, people. Everyone in this room, you see what he talked about? I know Ken Bowe and what he said is a profound point. It's the complexity of what he explains that so many of us miss. And I'm so pleased that Harvard is involved with this, because maybe the outcome of this collaboration could help us all to better understand the complexity of the matter we are facing.

Let me tell you a story that illustrates this complexity. There were two men in the mid 1950s or 1960s named E. P. Taylor and Warren Trip. By any measure, Warren Trip was infinitely more wealthy, powerful and influential on the global stage than was E. P. Taylor. Warren Trip was the chairman of Pan American Airlines, the largest airline in the world. This was at a time when Pan American was essentially an extension of the United States State Department. Now, E. P. Taylor was, by Canadian standards, a wealthy man, but between the two men, there was no doubt about who was more influential. The two of them had the same idea, the same vision, at the same time. E. P. Taylor chose to create his vision at a place that he called Lyford Cay. Warren Trip decided to create his vision at a place that he called Cotton Bay. They had the same vision: a very small boutique hotel that was very high end. Both would appeal to a very small group of people,

discerning visitors, who would add amenities and be respectful of the community. All these things that we talked about—the principles of sustainable development—were the tools that Trip and Taylor had [back then].

Cotton Bay started with a group of homeowners who made the folks at Lyford Cay look like middle class people. John McCone, a former head of the CIA, owned a house there, as did [Robert Lincoln] McNeal, the head of McNeal Laboratories, and they shared the community alongside the Kaiser family. To give you some context from today, it would be like starting a community with [John Brennan], Warren Buffet and Bill Gates. Those are the people in your community. That's how Cotton Bay started out.

Who built the golf course at Lyford Cay? No one knows today. I suppose you would have to go in the history books to see who did that. However, Warren Trip redesigned the course with the help of Trent Jones. Life at Cotton Bay had such a legacy that in the January before the resort closed in 1994, it was written up in Golf Magazine as one of the best places to stay and play. This was despite the fact that when you put the electric plug in the outlet, you'd sometimes get shocked, because the buildings were prefab and poorly constructed. They weren't built to last from the 1950s to the 1990s. Trip also built the airport. Now, I don't want to run on longer. What are some of the things you could learn from this?

The fact of the matter is that E. P. Taylor and Warren Trip needed to create a sense of place. It doesn't matter who or where it is, you need a sense of place, as well as capital. It takes massive amounts of investment capital. Investors need to be patient because it takes time to create a sense of place, and in order to do so you need some sense of scale. My point is that you need basic amenities. It's going to take time for those basic amenities to be self-supporting. You need capital. So when Ken Bowe talks about investors with mentors, those mentors better have a lot of deep pockets and a great deal of patience.

All those things that Reggie Smith mentioned for Exuma, and I'm sure we would all love to have them, but where's the money going to come from? You go to the central government, but they don't have any. Our country today has a debt to GDP ratio that's climbing at a rate that is unsustainable. I earlier saw the [former] minister responsible for the environment sitting right in front of me. There's no question about his commitment to what he is doing. I've had meetings with this man over the years and I saw it happen. He wasn't as green [environmentally conscious] back during our first meetings as he is now.

So I'm close to the end of my ten minutes. I've given

twenty-eight years of my life to this cause, people. To all Bahamians in this room, please understand you've got a role to play. Don't just go to seminars like this and talk about theory. We've got to do something. I'll give you a simple example about sustainable development. I went to Scotland one time. The highlight of my trip was a visit to a place that was the equivalent to the Botanical Gardens. In this garden there was a telling of Scottish history through a re-enactment. I said to my wife, wouldn't this sort of thing be wonderful in Eleuthera? You see, I am a loyalist, [so I was excited by the prospect of doing this same thing, back in The Bahamas]. I wondered why can't we do that? So I came back here, and tried to recreate it. You know how hard that is to do? [LAUGHTER] Do you know how much capital you need to do that? You know how patient that capital needs to be in order to do that?

My basic point to this is that economic development in these islands requires a lot from all of us. We welcome all who come to this land to work with us, be they Warren Trip, E. P. Taylor, or whomever. But the fact of the matter is that we need Bahamians who are prepared to invest, develop and be patient. I'm not saying don't use my example. Twenty-eight years is a long time. We've got over \$80 million sitting in the ground. Unless I find \$30 million more, and quickly, that \$80 million will disappear before I get to the finish line. See how difficult this is, people? This is reality.

Let me make this other point. You talk about education and about process. Man, you have no idea how complex this is. For example, I'm a developer on New Providence. I want to invite someone over to see what we're doing. On New Providence, you jump in the car, and you go. For me to do this, I've got to charter a plane. I've got to bring transportation. That takes simple things like fuel. You talk about fuel. So you've got a car there. We complain about the cost of fuel on New Providence. Try it in Eleuthera. Do you understand what I'm saying? These are the realities. Thank you very much. [LAUGHTER AND APPLAUSE]

Rema Hanna

So thank you both very much. I think we've had two very interesting points of view. And I think, before I open it up to the crowd, I would like to draw it together a bit and ask my own questions. So, after both talks, I think what's been highlighted is that there are a lot of problems that need to be tackled. There are issues regarding health, education and employment for generations to come. We need to be thinking about whether or not the harbour should be renovated and about investments in these areas. I think we've also talked about the complexities that come with the investments needed to meet this vision of what a

more sustainable future could be. However, as we talked about in the last session, we rarely have blank checks available for development purposes. And so with the discussion in mind, I'd like to ask my questions first before we open it up to the crowd. Are there low hanging fruits? Are there policies or programmes that you think need to be prioritised, things that could be done in the short run to improve economic development, to improve employment prospects for people in the area, in terms of bringing forward that grander vision, twenty, thirty, forty years down the line? I'd like to open that up to you both.

Franklyn Wilson

You want to go first?

Reginald Smith

OK. I think one of the first things that comes to mind is—and forgive me if I go on a lost track here—when we look at what we retain from what we make—The Bahamas makes a lot of money from tourism. There's a huge amount of money coming in here. I have often asked myself, why is it that we can't build roads? Why is it that we can't build schools? People, this is a national conversation that needs to be had in this country, not by the investor, not by the foreign person coming in, but by the local Bahamian. Here's a local Bahamian needing \$30 million. But we look down the road, and we see money going like crazy. Something's wrong and until we are willing to ask the question, why it is that we retain so little of the dollars that are made in The Bahamas, this will be our concern. We talked about Exuma making, as somebody said the other day, \$30 million in contributions to the economy of The Bahamas. I don't know if that's true. I don't know if that figure is exact. But the return coming back to Exuma for local government to even manage our situation is miniscule. We don't ask the average islander [how much money] their island contributed to the economy of The Bahamas. We can't tell you. It's a big secret. Why is that? So I think, as we go forward in this process, and I said to Dean [Mostafavi] and the team last night, we have to be sure that this time around, this is not just a conversation. We need to know that coming out of this forum will be some implementation, some plan going forward. I want to know why it is that we can build huge hotels here. We can get \$150 million to fix roads. We can do all these things. But a Bahamian businessman, who has spent twenty-eight years trying to develop a property, can't find additional capital. We have to look at these things. And it isn't his problem alone, you know. It's ours. It is the [Bahamian] people. I made the silly mistake of running for Parliament in this last election. [LAUGHTER] Actually, it was fun. But I developed a slogan in that little experience for Exuma, and I'm so glad the





Deputy Prime Minister pointed out to everybody today, we are Exuma. We're not the Exumas. We are the Exuma, all of us. My slogan went like this: "Many islands, one people, one voice." That's the dream of getting there. That's why his problem becomes my problem, and should be your problem [too].

Franklyn Wilson

You know, when you talk about low-lying fruits, I'd like to suggest two [scenarios]. We could learn from each other about what is happening in different islands, because the problem is repetitious. I'd like to draw to the attention of this group from Exuma two things happening in Eleuthera, which could be worthy of emulation. On that island there is the Eleuthera School at Cape Eleuthera. A lot of stuff having to do with sustainability is going on. A lot of kids come in from the United States now to go to the Eleuthera School. Harvard is here. Madam, you could imagine if we had a division of Harvard's School of Marine Biology in Exuma. Where they can learn more. In San Salvador we have the College of The Bahamas, and that has the Gerace [Research] Centre. People from Iceland, the board of Elmira College in New York, kids in large numbers— all of them go to the Gerace Centre for research. Imagine Harvard having a school of research in marine biology situated in Exuma. Now, that is sustainable. That is possible. I would invest in that. [LAUGHTER] OK? That's point number one.

Let me give you another example, a case in point, the Island School at Cape Eleuthera. It's happening. Do you see what I'm saying here? I'll give you another little [example]. For years the Holland America Cruises had a ship that docked at Princess Cay. For years, those people came. They did nothing but lay on the beach. Then one entrepreneur named Thomas Anse, decided to create a business. He got a couple of buses and he started a tour. That tour has grown to the point where Holland America reports that on their seven-day trip, it is the most popular tour they offer. They go to the Caymans. They go to a number of places. But that tour [in Princess Cay beat them all]. It is so fantastic.

I'll tell you a simple thing about Bahamian culture. There is a part of the tour in Eleuthera where you drive past native Eleutherans and they wave. So you know, part of the tour teaches you how to wave back. [LAUGHTER] That's actually part of the tour. They teach you to wave back, and the tourists love it. The highlight of the trip is a stop at the Sands Family Restaurant, which for years was the same. Nothing changed and they closed, but they got a Bahamian chef, reopened, and now it is the highlight of the tour. The main attraction of this stop, aside from [the restaurant] where you eat lunch, is the conch man. The conch man teaches you about the conch, how we cook it, and

how we eat it. He teaches everything about the conch.

Man

I am a Highlander.

Franklyn Wilson

That's the point. Yeah, I'm a Highlander. That's the point. You can extend that point. OK? The point I'm making to you is that there's some young person in Exuma who can go and learn how Tommy Sands did it in Eleuthera. They could then set up a tour for every cruise ship or every person there. Imagine if there were daily tours that went to those thirteen spots, and each one offered something different—this stop, you're eating the Johnnycake, at the next it is the potato bread, and so on—the model would work. These are the low-lying fruits. [APPLAUSE]

Rema Hanna

Thank you both. Now I'd like to turn it over to the crowd, if there are questions.

Woman

Hello. My name is Stacey Moultrie. I guess I would like to build on the point that Mr. Smith made about having a national conversation. I think that for too long we have sat back and let foreign investors dictate our economic landscape, and we need to have a national development policy. It needs to be written down. It needs not to change every five years with the wind. It needs to have the input of Bahamians. It needs to represent what we as a people need and the types of businesses we want. It has to help provide the future that we want for our children. It is too long that we've gone on, all over the place, not having a direction of where we want our country to go. I would like to see that conversation begin and finish and then start to be implemented in my lifetime. [LAUGHTER]

Franklyn Wilson

See Stacy, I hear that. Trust me, I'm speaking with the passion of twenty-eight years of experience, man. We don't need a conversation. Now let me tell you why I say we don't need a conversation. When I was in the accounting business, I used to tell foreign investors that they are coming into a country where the biggest debate in public economic policy revolves around two parties fighting over whose carpet is a deep red and whose carpet is maroon. In other words, we want foreign investment. You don't have the same risk, for example, that happened in Jamaica, where for a period of time you had one government come in and claim to be socialists and then the next government claim to be capitalists. We don't have that debate in this country. That's a debate we have settled. The fact of the matter is that we need more entrepreneurship. We need Bahamians to stop talking and start doing. We don't need any more talking. We need

someone in Exuma to start that tour company like Thomas Sands did in Eleuthera. That's what we need.

Man We need to have a plan, though.

Franklyn Wilson My point is we're not a communist country, man. [LAUGHTER] Let me tell you something, you decide where you're going. Let me tell you something. Just let me tell you something. No, I want to be very aggressive here, because I believe in this. [During the] last election, everybody was talking—they keep talking—[about how] we need a 30-year plan, a 40-year plan --

Man And we go nowhere.

Franklyn Wilson No, no, listen to me. You don't know where you're going. Let me ask you something. The good news in our country is that Bahamians have agreed on so much. We disagree on some things, but we agree on much more. Everyone in this country knows what happens, which political party I support. Everyone knows the minister in the former government and some of my best meetings with any cabinet minister, of any party, was with this man. He and I didn't agree when we talked about much. I could tell you all a story. I will always remember this. My lawyer, who happens to also be my daughter, goes to a meeting with this man, to talk about the Subdivisions Act. He was driving an important matter of public policy. He came out and gave my daughter a dollar and said that he wanted to retain her to be on his side as he entered into [the policy debate]. He wasn't fighting her. I was a developer and she was there as the lawyer for our project. He understood the need for balance between sustainability and all the rest of it. There was no debate on this. In fact, there's no minister in any government that I know who was ever against the basic policies that have been outlined here today. We don't need to debate that.

Woman Yeah, we do. [LAUGHTER]

Rema Hanna Reggie, why don't you comment, and then we'll get back to the crowd.

Reginald Smith I'll just comment on that, and also say that I have a great respect for my friend, Mr. Wilson. But here's the problem that I think we find in our country. Too few of us are talking for too many of us. [APPLAUSE] We are not engaged, people. That is the problem. Nassau seems to be the centre of the world. There are twenty-nine other islands in there as well. I'm 70 years old. I've travelled all over the world. I've been involved in various

businesses. I've started businesses of my own, have been successful in some and have failed in a lot. But you know the problem I find when I go to my own people? We talk about each other. But we do not talk to each other. [APPLAUSE] The message never gets across. This is the problem.

I'll be very blunt. We sit there, and we complain about the foreign guy coming into our country. Let me tell you something, people. We often do not support one another, ever, but we will run to support the first foreign person who comes here. [APPLAUSE] Isn't that true? Don't be afraid. This symposium is meant to find results. So let's be honest with ourselves.

I understand when Mr. Wilson says we don't need a conversation. You are listening to one of the most brilliant and successful people in this country. And he has had access to some very high levels. You don't have that. And do you know why you don't have it? It is because unlike him your voice is not heard. You're not out there making it happen. You can come into this country and do anything. Nobody demonstrates about it. No one complains about it. But the idea is that you can't complain about the guys (foreign investors) who come in here and make things happen. If they didn't come, very little would happen. We have to stop this mentality. So, I respectfully disagree with my friend. There is a conversation that needs to be had. That's what we're trying to do with the Chamber of Commerce in Exuma right now. And Mr. Bodie [Secretary of the Exuma Chamber of Commerce] is here. Ask him. Go around and talk to businessmen. We don't even have a sense of community. So how can you make things happen without that? That is the conversation I'm talking about. It is one that is very necessary at a very low level. We have to start in the schools. And I see my friend, Dr. Deveaux, sitting here and I know what he's going through. I see his wife sitting here. She was on the board of one of the greatest opportunities that we had. You talk about the Island School and the Perry Institute for Marine Science (PIMS), which was in Lee Stocking Island for many, many years. Ask us how much research went on at PIMS? And PIMS is now gone. We lost it. And not a whimper came out of Exuma to argue for that research station.

Rema Hanna

Much, much, much conversation going on. We still, have a few more questions on the floor.

Woman

Thank you. My name is Danielle Gibson. I'm the Director of Government Relations and Outreach for the Island School, Cape Eleuthera Institute and Deep Creek Middle School. We're talking about economics and national development. When you talk about a model for sustainability, one of the reasons I left my

government job is because I saw that model at the Island School. The Island School started out in tents, and almost fifteen years later, we have almost fifteen buildings. We are the centre for renewable energy in The Bahamas. We have an aquaculture farm. We have an aquaponics farm. We have the first biodigester in The Bahamas. We try to live what we build. We try to build the way we live. We try to live better in a place. And I think that a lot of times the developers that come on the scene, want to build so fast that the communities are not going to support what it is that is being built. They're not at that level, because you're not helping them to get to that level in many cases. In the development at Cotton Bay, there's a proposed golf course. There is already a golf course in Cotton Bay. While I'm not a tree-hugger, I do respect the environment. When we talk about sustainability, I think about golf courses, and I think about the runoff. I think about the land clearing. I think about access to beaches. I think about the natural pristine habitat that's being used for this amenity. But we can share these resources on small islands like Eleuthera. So when I think about national policy, that's what I think about.

Rema Hanna

Thank you. So I wanted to take what you were saying and reframe it a bit in terms of a question to both speakers. What you just discussed was an example of entrepreneurship. Despite their professed disagreements, I think both speakers do agree that what is needed for growth and development is to encourage entrepreneurs. And so when we see examples such as what you just described, it would be nice if the speakers could comment a little bit about what could be done to encourage this kind of entrepreneurship more generally.

Franklyn Wilson

Well, see, it's not the question of capital. Harvard University is here. [LAUGHTER] Let me tell you the relevance behind that. This is so complex, it speaks to the psyche of the average Bahamian. We are a conservative people. Even the gamblers tell you that they would prefer a 10% shot at getting one dollar instead of a 1% shot at one million dollars. In our capital markets, we don't buy common shares. We want bonds. Give us the bonds. Pay me my interest. I get my 7% or my 8% and we are content with that. If you make 20 or 30%, that's your business. That's a complex matter, people.

When I said we don't need a conversation, obviously that wasn't intended to be insulting, or rude, or anything. Obviously you've got to keep talking. There's no harm in talking.

The only point I'm making to you is that it's complex. When we talked about the money in Cotton Bay, Hugh Sands was the country manager for the Barclay's Bank. It was the biggest bank

in the country at the time. He was very friendly with us, and very sympathetic to our cause. He saw Albert Sands, who was another businessman in South Eleuthera at the time, and myself struggling. He told us one night over dinner that the saddest thing about the situation is that the money exists. He explained the Rock Sound branch of the Royal Bank had multiple times the amount of money we were trying to get in deposits. But people won't re-invest. They won't put it back into their communities.

The point I'm making, getting back to [Mr. Smith's] point, is that I totally agree with what he said, Madam Chair. I can't answer this question with first hand certainty. I'm just explaining that it goes well beyond just mentors. That's the point I'm making. It moves beyond just mentors. When Ken Bowe used the term about the process, he was alluding to the complexity of the problem. This included the fact that when you approach investors for the capital, they are typically risk-averse. So it's not easy. I say this—and I am older than Stacy—but I want to see it in my lifetime, too. [LAUGHTER] So I keep pushing.

Rema Hanna

Go ahead.

Man

I have a question. My name is Michael Pratt. And I am glad we are talking about this conversation. Doing some work down in Exuma, one of the things I realised was that this is an easy fix. I can go down to Exuma, build a marina, a boutique motel, and I'd be wealthy for a couple of generations. But there is no access to capital for persons like myself. I mean, I'm sitting down looking at some of my workers, and I recognise that they can probably have access to US dollars, with LIBOR based rates around 2-3%, but I would only be offered a loan in Bahamian dollars, at an effective rate of about 18-20%. Perhaps I have to go look for Mr. Wilson—or maybe my friends at Harvard, as Mr. Wilson says—to get my deposits. [LAUGHTER] So the question I have, in all this talk about sustainability is how can we talk about the policies that need to be addressed, when the bigger issue is with the central bank and loan rates? I need to have easy and fair access to capital. I have to have competitive rates. This would make being an entrepreneur far easier in a way that enables me greater access to capital so that I can expand and employ more people.

I could be totally wrong. I see Uncle Frankie shaking his head, but I need to have access to capital that won't bankrupt me while paying it off. And quite frankly, I don't have that. It is easier for my staff, most of who are of foreign descent, to come in and get a loan at a competitive rate than it is for me. It's quite plain that something is wrong, and that needs to be addressed as a part of sustainability.

Franklyn Wilson

No, see, people, again, man, please stop looking for excuses. That's an excuse. I'm being blunt here this morning. Let me tell you why I say that. I have told you that the nature of the capital markets in The Bahamas is conservative. We are conservative. I bet if you went and checked, that foreign person who got the money didn't get it just because he was foreign. The question you should be asking is what did he probably do? Did he save something? The savings rate in our country is abysmal. Check the central bank figures. For instance, if you take an average teacher in The Bahamas and you give them six months to find \$2,000; they will likely have to go borrow it. What I'm saying to you is that you have to start by saving.

Reginald Smith

There's another part to what Mr. Wilson is saying. And I need you to hear this, folks, because this is true. This comes from the financial community. One of the problems that we have as Bahamian businessmen and accessing capital is that we don't keep records of our companies. It is very sad. My example is of an investor I know who went to a seminar in Freeport, and then went around the Caribbean looking to lend money, specifically to people who wanted to buy American products, from the Inter-American Development Bank (IDB). What he found was that in the Caribbean the average local businessmen does not structure their businesses in a way that enables them to gain access to capital. You go the bank, and the bank wants to see three years of records. There are no records. What I'm saying is that along with the savings aspect that Mr. Wilson brings up, it is also about structuring businesses in a manner that conforms to the lenders standards and expectations. That's how we gain better access to capital. Now, one of the things I think we want to do here in Exuma—that was done through the Grand Bahama Chamber of Commerce—is to invite this investor I know to come down and hold a seminar with the business community. Ideally, he can teach us how to access the money that is available by restructuring how we keep records. There is money out there for you. But when you go to that man, and you sit down, and you say that you want to borrow money, he's going to ask you for information. Unfortunately, go to any number of Bahamian businesses, some of them doing very well, and ask to look at their books --

Franklyn Wilson

If I could offer one comment, just before you move on, please. Just give me a minute. And again forgive me people. I'm a little passionate about this, because when you get to 65 years old, you don't like green bananas too much. [LAUGHTER] But the point I'm making is this—think about the complexity. When you go to

the banks. You have heard people talk about the rate of consumer borrowing in this country, and it's at unsustainable levels. Right? Well, think about that, people. That's all of us in this room.

Man

It's encouraged.

Franklyn Wilson

But the banks, but you could say, no. The bank isn't forcing you to take the money. You went to the bank to borrow the money. You went to the bank to borrow the money for the fridge or the car. You went. The bank didn't come to you. Think about it. Put yourself in the banker's shoes. For an example, let me concentrate on government employees with a salary deduction, which means that if you're working for the government, the risk the bank takes on is lessened because salary deduction is good collateral. I can get 18% on my money. Now, that's one opportunity you have. [Let's say that Mr. Smith] comes to me. He wants to do a development that he's never done before. It's high risk. It's for development. It will be good for the country. It will be good for everybody else. But Mr. Smith got a business plan that says he wants prime plus two. As a banker, I could lend the money to [someone] at 18% with a guaranteed salary deduction, or I could lend it to [Mr. Smith] at 5% with no salary deduction and take on a risk. More and more banks are saying that they can lend the money to the first person. So there's a crowding out that's taking place. For example, Fidelity Bank started out as First Home Savings and Loan. They don't even pretend that they do loans for housing anymore.

The credit union movement in this country started out to help people. I'm in the housing business and I see people who come to me with loans from the credit union. I say, what are these credit unions doing? In this country, it's all about salary deduction. With that guaranteed deduction, a bank will be more apt to lend you the money.

So I will end on this note and Madam, and I promise I'll say no more. Because I think my passion is getting the better part of me here. The point is we're talking about something to which there is wide agreement in this country. I don't know whatever the conclusions would be. But there is wide agreement in this country. We need to protect what we have. We don't necessarily act on that a lot of times. But we understand it. To solve the problem will be difficult. What we need to have is the entrepreneurship. We need to recognise our conservative nature as investors, and some other things.

Rema Hanna

I'd like to bring in a few more questions.

Woman

OK, I just, I really agree with you, Mr. Wilson. We, as entrepreneurs, know that Bahamians do not really like to have a

track record of their business. I conducted a training session [for burgeoning entrepreneurs] and I told them that if they made two dollars a day, they needed to put those two dollars in the bank. If they have to take that two dollars back out, they have established a track record. A lot of them wound up doing that and they were able to provide the bank with some idea of how much they made within a year. As Bahamians, we all have to start taking ownership. We would prefer to put \$10,000 in the bank, to say, OK, we're going to look at it all day and get like 2% or 2.5%, rather than taking some of that money and trying to invest in some type of business. We need ownership, and good ownership necessitates a plan. A man who fails to plan wants to fail. You have to have a plan. But how do you break that plan down? Well, how do you eat an elephant? One bite at a time. So you're going to have to take small sections of that plan and develop it in order for you and the greater community to be successful. You may not be able to do everything at one time, but that's a small portion at a time. And as you perfect one portion, you go to the next portion, and eventually the whole plan will come to fruition.

Rema Hanna

We will take that question and then answer it all together.

Woman

Good afternoon, again. My company, Experiential Education, has decided to reach out to the low hanging fruit, and also take a bite. We're eating the elephant one bite at a time. As I said before, I'm a descent of Mount Thompson. Our family has 128 acres in the area of Jimmy Hill, and I have recently retired. I've decided to take some of my money and invest in Exuma. [APPLAUSE] Thank you, Mr. Wilson. And so my partner and I go into schools. We explain domestic tourism with the youngsters, because we know we need to start with the young children. We have to help them cultivate a love of their country. So right now, next month, we have two groups going from one of the primary schools. They're going to spend a day in Exuma. We're going to give the money to Mount Thompson, Ramsey and Jimmy Hill. My aunt, will tell them stories. We're going to pay her for that. My cousin is going to cook. We're going to pay him for that. We're bringing the young marine explorers from New Providence. We're going to teach them how to scuba dive by the Three Sisters—that rock out there. We're going to pay them for that too. I excavated Jimmy Hill and I must say, I used illegal immigrants, because I can, and because I had to. I tried to get the locals. They would not help me. I was in the bush. I'm trying to cut, to clear out my little crab hole. So I had to find the people here from George Town who would. And I would really like for the immigration department to sort of work with us, so that we can, in a legal fashion, be able to employ

people who want to work. Our Bahamian young men often promise that they will come but then they don't show up. So you have to get whomever you can find. We were able to clear a very, very nice area that we are going to use as a part of the eco tour. Our primary purpose, what we really want to do, is to keep the money within these communities. And it doesn't take that much money. I'm not looking for foreign investment. I'm using my own money, and I'm not even looking to get rich, because if you get into a business with the goal of making money, you may not. Go into a business with a goal of serving a community, of making a dream come true. Once you realise that, before you know it, the money will come. So, I'm reaching for the low hanging fruit. Thank you. [APPLAUSE]

Reginald Smith

Thank you, ma'am. I just want to share something, an experience I had in Moss Town. And Dr. Cant is here, and sir, I don't know if you know this but there's a place in Moss Town called "The Fountains." I don't know if you're aware of that. It's up the back of the hill; you go over the hill in Moss Town. There are cabins there that are filled with millions of gallons of water. It used to be the supply for the town long before we had running water in there. We suggested to a group of people that Moss Town could really be an eco tourist site. You can clear it out. You can take people up there. The water is cold for some reason. And it's very, very fresh. It's almost sweet. I've had the water. You go through the bushes. You find a little hole in the rock about 1 foot wide. You can get a paint kettle through. You drop it down about 30 or 40 feet, and you can hear the splash and you bring this water up. It's cool, it's sweet and this is the basis of the tour. There's another place there where you can actually see the water moving, but I haven't been to that one because it's through a thick copse of bushes. But I tried to get that community to cut a path up there, to put in a walking tour, to cut up the old buildings on the hill. This community can really make something happen between Moss Town and Hermitage. And we're still working on that. But you know what the setback is? It is to get the people to cut the track road. Nobody would do it. I went to the business outlook and I talked about this. Three months later, I had a person call me from Nassau, from a lawyer's office, who said he had thirty people arriving in Exuma. They wanted to go see that fountain. So I went back to the community, and I asked them if we were ready to go. And surprise—they were not ready, it hadn't been done. The reason provided was that they needed the money to cut the road. I'll leave that story there. [LAUGHTER]

Rema Hanna

So we have another question.

Man

Good afternoon, my name is Mark Daniels. I work for the Leon Levi Native Plant Preserve in Governor's Harbour, Eleuthera. Mr. Smith, I guess you kind of commented on my question. Mr. Wilson mentioned Mr. Sands in Eleuthera. I think that example of heritage-based or nature-based tourism is a very valuable resource that we have in our islands. At the preserve, we serve both that heritage-based function as well as providing a nature-based destination for locals and visitors to come to the island.

What I wanted to ask Mr. Smith is that I know the Exuma Cays Land and Sea Park provides that nature based tourism. But what other opportunities are there in Exuma for local persons in settlements to establish businesses or to empower themselves in those communities to provide that type of opportunity for visitors to the island? You just mentioned the well. But what opportunities are there? And speaking for Eleuthera, there is an upwelling of grassroots support amongst people across the island. Do you see that in Exuma? And if not, is that a hindrance to the development of that type of sustainable tourism in these settlements?

Reginald Smith

Thank you. It's a good question. Yes, I do see it as a hindrance. Take for example two things in Williams Town. The first is a place called the Salinas. It's where they used to make salt. And because of that there's a salt beacon there. They light it and they come in and take the salt out. Now, I've seen this for many, many years and never really thought about it until I went to Hot Springs in, I think it's Arkansas, and saw how they use the hot springs there to create an industry. Well, the salt in Williams Town could actually become an industry. Every summer, people go out and rake bushels and bushels of salt, and they stack it up in their houses and do nothing with it. But you can use the salt as treatments. You can use it to make seasonings. You can make rock salt. There are many things you can do from that. Unfortunately, nobody is doing anything about it.

There's an old plantation in [Williams Town], and if you go behind the building on the main road, there's more buildings back there that were built by the slaves out of stone. And the cuttings are so incredible, that you wonder how these people got them to fit together. It's mind-boggling. But you know what's happening? We're breaking the stones down. We're taking them away, and we're destroying the site. Someone could build that into a tour. There's a beautiful beach there and there are many things you can do.

Are there opportunities? Yes, there are opportunities in these communities. Many of which do not take a lot of money.

You know what they do take? They take elbow grease. And this is what I hope we start to understand about our tourism. And this is what Ken [Bowe] was talking about when he discussed the process. Knowing how to do the thing from scratch and developing the product. That's the problem. We want the 10% of money we can make. I'm a straw vendor, and I buy baskets made in Taiwan to sell in my stall, rather than go through the process of harvesting the straw and contacting the artisan to produce the basket. That's a problem. The problem is, we do not want to go through the process of developing. People come here looking for things to buy in The Bahamas. They can't find it. I own stores on Bay Street where, you know, we bought stuff from other countries because we could not get it produced here in The Bahamas. More times than not, if someone tells you they're going to produce a product, they generally can't sustain it, because that entails going to work and making ten pieces and then selling it as a whole. But when you want the next ten pieces, the materials are simply not available. So from a grassroots level, we do have to start to understand the process. How it gets done. Then we have to have the will to act. When we make promises that we're going to have things, they have got to be there. Consistency is another issue that hurts us.

Rema Hanna

Good. I think we're going to take one last question before lunch.

Man

This is in reference to Mr. Smith's comment about the road being built to the well. We work together to make Exuma more accessible. But we need to move beyond just making access to these sites. We need to find a way for the locals to make money from these sites as well. And in terms of new developments coming to the island, a lot of times the decisions are made in Nassau before the locals know exactly what's going on. This is a town meeting to get feedback from the locals, because sometimes more harm than good is done when development occurs.

Rema Hanna

Thank you very much for a wonderful session. [APPLAUSE]





Session 3

Governance

Gareth Doherty

The panel in governance is being moderated by Professor Diane Davis, Professor of Urbanism and Development at the Harvard Graduate School of Design. Professor Davis's work examines the relationship between urbanisation and national development, the politics of urban development policy and conflict cities. She has explored topics such as urban social movements and governance, fragmented sovereignty and state formation. Her current research focuses on the transformation of cities in the global south, particularly the social and political conflicts that have emerged in response to globalisation, informality and political or economic violence. Davis is an elected member of the Urban and Regional Development Section of the International Sociological Association and serves on the editorial boards of several notable journals. Thank you, Diane.

Diane Davis

Thank you, Gareth. Good afternoon. I'm glad that most of you have come back from lunch so I think we're going to have a great panel, and I'm not going to spend too much time giving an introduction, because we are running a little late and we might try to end this panel within an hour. We'll see how it goes. When the conference started this morning, after the really intense discussion about environmental sustainability and all the challenges facing The Bahamas and the Exumas in particular, I started worrying that people were going to be bored when we got to the panel on governance. [LAUGHTER] And then, after the second panel, when we got to economic development, I breathed a sigh of relief because I realised we really needed this panel, because we need to think about these two challenges at the same time, environmental sustainability and economic sustainability. And they are not necessarily in sync all the time. Any decision that is taken that could simultaneously foster both ecological and environmental sustainability is going to need institutional action. It's not, as we saw in the debate, going to happen with one group saying this is what we need, and another group saying that's what we need. Everybody comes into the problem from a particular vantage point. So in order to really address all these things together, creating an institutional context of making decisions about the future is essential. When you think about institutional action, of course, you think about governance structures that lay out institutional arrangements,

but we also think about citizens and NGOs and the private sector, and the ways in which they have a conversation together, or represent interests. I think that is what the panel is going to be about today. Thinking a little more about the governance, institutions and structures, and the challenges that exist to create consensus, to foster dialogue, to generate and share knowledge, and to generate information across the important domains of government, the private sector and civil society, all of which have a stake in the future, but might not see things through the same lens. So today, we're excited that we have two different people who are involved in governance. We will start first with Theophilus Cox.

When you think about institutional action, of course, you think about governance structures that lay out institutional arrangements, but we also think about citizens and NGOs and the private sector, and the ways in which they have a conversation together ...

Theophilus began his teaching career at the A. F. Adderley Senior High School here in Nassau. As an educator, he served ten years in the classroom and twenty years in administration throughout the Commonwealth. His educational background includes a diploma in youth work from the University of Guyana, a bachelor's degree from the University of Miami, and a master's degree from Andrews University in Berrien Springs, Michigan. In 2002, Theophilus joined the Department of Local Government as the Family Island Administrator and is presently posted in Exuma. He is going to talk to us a little more about administration, politics and the importance of conversation in Exuma.

Theophilus Cox

Thank you very much. Good afternoon, ladies and gentlemen. My task here this afternoon is mainly to point out the challenges that face local government and to offer some suggestions that could be put in place to move toward a more sustainable future. Like other islands of the Commonwealth of The Bahamas, the day-to-day activities are usually coordinated by the local government, which is headed by a chief councillor. While the idea itself is an excellent one, there are serious challenges affecting what they can and cannot do. As it now stands, most of the decisions for the island are still being made by the central government in New Providence. This often poses a challenge because usually, the local government has no input and at the end of the day, they're required to monitor these projects that

they know nothing about. If Exuma is to move forward, there must be a re-examination of the powers and resources allocated to local government. In other words, there needs to be a paradigm shift. In order for this shift to take place though, there must be an amendment to the Local Government Act of 1996. It is imperative that a strategic plan be put in place so that successive councils will not have to plan or put new ideas in place every time there is a change of leadership.

Local government, in my humble opinion, needs to be given more autonomy. It is my view that they should be placed in a position where they can generate their own revenue, and be monitored by the public treasury with the assistance of a certified accountant. It is difficult for one to believe the amount of money that local government in Exuma receives when Exuma contributes so much to the public treasury. In 2011, Exuma contributed \$10,641,571.53 to the public treasury. [LAUGHTER] That same year, they received \$665,600. In 2012, Exuma contributed \$11,286,778.34. In that same year, they received \$665,600. Yes, they received the same amount both years. Something has to be wrong with that picture. While others may look at the revenue collected in Exuma as very productive compared to other islands, it is but a drop in the bucket. When we look at the leakage that exists in the cays, we have found that millions of dollars are left unaccounted. This is one area in which I feel that local government, if empowered, can collect revenue on the central government's behalf, since the central government does not have offices in all of the cays.

Among the numerous areas of governance for which local government is responsible, garbage collection is one. Last year, more than 5% of that budget was allocated to garbage collection. Sad to say that in spite of all that money and effort that is being made, there is still some indiscriminate dumping. Some locals still believe that it is the local government's responsibility to clean up after them. This must change. Exuma, we know, is a boating community of The Bahamas, and we are proud of that. But there is concern for what happens to the waste that these boaters generate. There is a waste management plant situated in George Town, but questions arise as to what happens to these boaters who are situated in the cays. While this does not come directly under local government, it is of serious concern. The job of the chief councillor, I feel, should be a full-time, paid position. As it now stands, we cannot expect anyone to give of him or herself full-time hours [unpaid] when they have a family to sustain [and bills to pay]. I am of the view that a chief councillor should be elected by a majority of the people, just like the members of parliament. It should not be left to five or nine

people to make decisions for the rest of the island. Because of the way the system is set up and other mitigating circumstances, local government is not attracting the brightest minds in the community. Central government does at times ask the council for some input and their opinion, however, a man can only take you as far as he is going himself. The government realised this and as a result, established a junior council in the senior schools. What they want to do is educate the students at the high school level, so by the time they graduate, they would have a better understanding of what local government is all about. This, I think, is a move in the right direction.

The appointment of statutory boards is another area that local government is responsible for, which is very crucial. While I will not be able to elaborate on all of them, I will just touch on a few. From my experience, it appears that the elected members, who are responsible for these appointments, seem to not be able to move beyond their petty differences and appoint people who are truly qualified to do the job. Town planning is one of those statutory boards that need to be closely monitored. This board is really responsible for the present and future of the entire island. The way forward requires a strategic land policy plan for the development of the island. All areas, I feel, should be properly zoned and these zoning laws should be adhered to strictly. Developers should not be allowed to build what they want, where they feel like, tampering with wetlands, and filling in the creeks. The locals should be made aware that these laws also apply to them. An area of concern is the slow response that central government agencies possess when it comes to breaches that are reported to them by the town planning board. As it now stands, the town planning board does not have the authority to stop a project if there is a breach. We need central government agencies to do that.

In conclusion, I strongly feel that local government can be a very, very effective tool if some amendments are made to the existing act. I feel these amendments should: 1.) Include a provision that gives local government more autonomy; 2.) Make it mandatory for councils with the assistance of central government to establish a strategic plan for the development of the island; 3.) Create a provision for local government to generate their own funds; 4.) Enable local governments, under strict supervision, to collect monies from the cays on the behalf of the central government; 5.) Allocate more of the revenue collected from the islands towards assisting the development of the island; 6.) Allow councils to have greater input in what type of development is being negotiated for the island; 7.) Make the chief councillor's position a full-time, paid job; 8.) Allow the entire

district to vote for the position of a chief councillor; 9.) Create a distinctive set of guidelines as to the qualifications needed for appointments to the statutory boards; and 10.) Establish a family island section in New Providence for port and town planning so that the applicants do not have to wait six to twelve months for a response. While a few of these recommendations may seem farfetched to some, they do offer an excellent springboard to begin negotiation as to how we can best improve and move Exuma forward toward a sustainable future. Thank you.
[APPLAUSE]

Diane Davis

Thank you very much, Theophilus. I'm sure there's going to be questions and comments about that. But before we open it out to the audience for responses, we're going to turn it over to our next speaker, Esther Rolle.

Esther completed her studies at Penn Foster Career School International in 2010, where she received her certificate in medical assistance. Esther interned at the local clinic in Black Point, Exuma, where she had first-hand exposure to the particular needs of the Black Point community. She was the first woman to be elected as a councillor to the local government board for Black Point in 2009, and again in 2012, where she continues to be an active member in the community. Esther?

Sustainable development focuses on improving the quality of life for all of the citizens without increasing the use of natural resources beyond what the environment is able to adequately supply indefinitely. Sustainable development, therefore, is all about taking action, being proactive, rather than reactive.

Esther Rolle

Thank you. [APPLAUSE] Thank you, Diane. Please don't go to sleep on me. I see some eyes already dropping. [LAUGHTER] We had a great meal. According to [Phil Hardin, 2007], without an environmentally sustainable economy, stability and social cohesion cannot be achieved. Protocol has already been established.

Before I continue, a pleasant good afternoon to all. It's an honour for me to have been given this opportunity to speak on behalf of the local government about some of the most beautiful islands in The Bahamas, the Exuma Cays. Sustainable development is a development that meets the need of the present, without compromising the ability of future generations to meet their needs. It focuses on improving the quality of life for

all of the citizens without increasing the use of natural resources beyond what the environment is able to adequately supply. Sustainable development, therefore, is all about taking action and being proactive, rather than reactive.

Having given a definition of sustainable development, let me now hasten to say that there is a great need for sustainable development in the Exuma Cays. If we are going to survive the foreseeable future and beyond, then we will need to focus our attention on three aspects of sustainable development: Ocean management; Solar and wind energy development; and ecotourism. In The Bahamas, many people get their livelihoods from the ocean. It is a great source of food, not only for Bahamians, but also for others throughout the world by way of exportation. Because of our great marine life, not only is the ocean used for fishing, but it also serves as a trans-shipping route and a tourist destination that provides recreational purpose. Knowing this, we need to do all we can to ensure preservation and conservation of the ocean. While it is impossible to manage the ocean, we can lobby for governments to enact laws, to make amendments to those laws and to enforce or regulate, as the case may be, against ocean littering and pollution. The following scenarios need to be adequately addressed.

First, when garbage, bottles, cans, plastic and so on are not properly disposed of in the appropriate receptacles they can take a deadly toll on marine life. This sort of pollution can reduce the number of species over a period of time, eventually causing extinction, in certain cases. Second, the chemical and oil spillage from large and small-motorised vessels kills the coral reefs and other marine life. Third, there needs to be an increase of effort to cultivate marine life in order to maintain the tourism business. Of particular interest, for instance, is the lionfish invasion [a non-indigenous species that was accidentally introduced to the Caribbean in the 1990s]. As its population increases, it is consuming the native species of fish [on an unsustainable scale]. Special efforts are needed to control [the propagation of] this deadly species. I wish we had some on our plate today.
[LAUGHTER]

The Exuma Cays, like all the rest of The Bahamas, necessitate a great deal of electricity in order to provide residential homes with the proper heat and light energy. This is the greatest single strain on economic growth in The Bahamas. Our country is one that receives approximately 300 days of sunshine annually, and about the same amount of days with wind speed at 15 knots or more. If only these natural sources could be tapped and converted into solar and renewable energy. The cost of electricity would be drastically lower. The need for gas and

diesel would be drastically reduced. And the costs associated with purchasing oil would be substantially reduced or non-existent. [Over Yonder Cay is currently making this happen] by powering its facilities with solar energy. There is also a need for our government to promote and encourage renewable energy sources as they could help to eliminate the total dependence on diesel generators and the [financial and environmental] costs associated with running these machines. A decision to convert the present energy system into solar energy and other renewable sources can be part of a sustainable development plan, which would replace the existing non-renewable energy sources presently being used. It would also help to preserve the environment so that the generation to come will be able to enjoy the benefits of less expensive, renewable energy, while continuing to protect our environment.

The Bahamas possess one of the fastest growing segments of ecotourism in the world. Ecotourism attracts environmentally responsible tourists, which in turn helps to protect the natural, historical and cultural heritage of The Bahamas. Ecotourism itself can be the catalyst that promotes conservation and sustainable development, while providing benefits to our local community. The principles of ecotourism are about uniting conservation communities with sustainable travel. These principles include minimising the impact that invasive species have on indigenous species. They also cultivate a greater respect for the laws that govern the environment so as to preserve it for generations to come. We can do this by building environmental and cultural awareness to ensure that the environment is always kept clean and safe.

Providing positive experiences for both visitors and [locals is critical to our ecotourism industry and our overall way of life]. Basic things such as cooking native dishes, sharing our traditional stories, and demonstrating indigenous dances all go a long way in providing visitors with a cultural experience unique to The Bahamas. Other activities such as swimming, snorkelling, sailing, feeding iguanas, scuba diving, conch fishing, game fishing, water cave exploration and straw craft also act to bring in more tourism. We can learn from our visitors as well. By obtaining feedback from our guests, and then bringing it to the attention of government offices, we can be better equipped to provide a more positive experience. Ideally, this will act towards enticing more tourism and [subsequently will create more jobs and increase economic prosperity].

In order to maintain our appeal, it is particularly critical to preserve our natural environment. If we focus on this preservation, we will provide an atmosphere that maximises

financial benefits and empowers local people. Additionally, by enhancing our commitment to produce local goods, we further assist our citizens in becoming [entrepreneurs].

Once these points are well thought out and a plan is properly organised and implemented, we will be well on our way towards more sustainable development in the Exuma Cays. Thank you. [APPLAUSE]

Diane Davis

OK, I'm not going to pose any questions to my panellists, but let me just say something that struck me in listening to these presentations, some themes that maybe we'll return to when we open the discussion to the audience. It strikes me that the issue of scale in terms of your planning is a really important question. We heard from Mr. Cox about tensions between the central government and the local government. Not having the capacity at the local level to be able to do things that people in the community feel is important is problematic. So I think that's one issue that we want to think about, but on the other hand, listening to [Ms. Rolle's] presentation, one also has to think about the ways in which we can give power to the locality, the decisions that are made may have spill-over effects to other islands as well. So it's not always a simple decision about whether the power is going to be only at the central government or only at the local government, but rather thinking about the ways in which these different units of governance can come together in a plan for a more sustainable Exuma. That's just one issue I wanted to put on the table. But I really want to open it up to questions from the audience. Who's going to be the first?

Man

Mr. Cox, I have a devil's advocate question for you. Actually I have two questions. You talked about the amount of money that Exuma puts into the Bahamian economy, relative to how little they get back. But let's look at say, Rum Cay for example, where they probably don't put anything into the greater Bahamian economy. Shouldn't they deserve to get some of that pool back too? My point is that I can see other islands' arguments, including New Providence where the majority of people live. Despite the fact that one area produces something, isn't it actually for the entire country?

The second question I have for you, is how do we control our local government decisions? I ask because I think it was in Crooked Island, I can't remember exactly, but I've been to so many of the islands where local government has approved the mining of sand off of a beach. These mining projects then completely change the environment. Thank you.





Theophilus Cox

OK, let me attack the second one first. You remember me saying that because of the structure, we do not receive the brightest of minds. You remember me saying that? [LAUGHTER] So I will just leave that one at that. [LAUGHTER] And the other one was when it comes to the distribution of funds, well, we realise that there are some islands that do not contribute as much to the treasury as others. Those other islands end up having to help them along. Now, I am not saying that we should expect to get all that we give, but I do feel that in the very least, what we receive should be a reflection of what we provide.

Diane Davis

Question? We want you to use the microphone because it helps us with the recording.

Earl D. Deveaux

Thank you. I'm an administrator, a councillor, and I'm a little concerned about this perception of what goes in the pot and what comes out. Let me use electricity as an illustration. The Bahamas has a unified electricity rate, so every consumer in New Providence could legitimately complain that they transfer millions of dollars in energy costs to the family islands. Every time they turn the lights on, money is sent to Crooked and Acklins, Exuma, as well as Andros and Eleuthera. This is because New Providence generates electricity at a price that permits the consumers here to purchase it for somewhere around 20 cents per kilowatt. We charge 45 cents, but that's not sufficient to recoup the cost in Exuma. I say that so as to get beyond the discussion of how you transfer the money. I think if Exuma, Eleuthera and Andros take into account the police, the clinic, the infrastructure and the heavy investment against that background, perhaps we can determine what are the specified things in the Local Government Act that we are responsible for, and how much it costs to deliver those services. I think that based on the request for money for the things that they are authorised and responsible, we'd get a more intelligent discussion about how much should be allocated for local government, coupled with your point about capacity, with respect to the statutory boards.

I'll end with one final observation. When the councillors elected an organisation like the Bahamas National Trust or the Bahamas Environment, Science & Technology Commission, do they provide you with a template for the critical resource constraints in the island to which you're administering? Here is the water, here are the wetlands and here are the issues. When you make decisions, these are the things you would have to take into consideration so that your decisions are based against an objective standard, rather than dependent on who gets elected.

Theophilus Cox When it comes to that, it depends on the island you're on because when you move from island to island, you find that one group is more knowledgeable than another group. So while one group will be up to speed to what is expected, the others don't have a clue. This now leaves it to the administrator to try to educate. Of course, they've been doing it the wrong way for so long, they have developed an inclusive mindset as if to say, "Who are you to change anything, this is the way we have always done things."

Man Administrator, I have one question and perhaps you could help me with this. You suggested that as you develop Exuma and the islands of Exuma, perhaps we should have a comprehensive plan and an individual plan or a comprehensive individual plan with appropriate zoning on each one of the islands. I want you to help me with how to go about developing that plan, considering Exuma is primarily divided into common land, generational land, and a small section of government-owned land. Also, regarding the islands of Exuma, that some people call the Cays of Exuma, how do you tell a private developer what are the expectations. Can we tell a developer that we want them to develop the land in a particular way or direction? Would we have the power to say how we'd like the island to take shape? As of now, all we have is the requirement to get approval for a singular building on the island, rather than approval for the entire island at the same time.

Theophilus Cox OK, the commonage is another story, because I don't think the central government itself has a handle on that because we've had a series of complaints. But as far as putting in place zoning, The Bahamas belongs to you. And I don't think an investor should come and tell you what they want. You should --

Man I'm talking about the locals who primarily own this common land. They will say to me that they are a Rolle, and that they own all of this tract so go ahead and develop however you want to develop. What I would like to primarily know is why can these people, that have generational lands, get an approval for a single building without having a more comprehensive vision of the big piece their family has, or any planning strategy that the government has developed for the whole island?

Theophilus Cox Well, personally, I feel that if the island is zoned—be it commonage, be it crown land or what have you—what you are saying is what should take place. The government should have a set of parameters that state if you decide to build in a particular area, then this is the type of structure that you can build.

However, what I found in Exuma is that there has been a lot of breaching of the Subdivision Act. You have an area that has been zoned for private homes, apartments and duplexes. The question that they put forward is typically whether or not the area has been zoned for private homes. If you give them the permission to build a duplex, you need to give me the same consent to build. Regardless of what they did in the past, this is what we're going to do now. The parameters should be exact. For instance, if it is a family zoned plot, zoned for duplex or a multi-family, then that is exactly what we're going to build there. We cannot continue to enable errors and breaches in our standards.

Woman

Good afternoon, Mr. Cox. I'm sorry I missed your presentation. You may have addressed this already. Administrator, is that the same as commissioner?

Theophilus Cox

Mistake. [LAUGHTER]

Woman

OK, all right, I wasn't too sure.

Theophilus Cox

The commissioner has more power.

Woman

[LAUGHTER] OK. Whose job is it within the various settlements to look into issues that a settlement might have? Because over the years I've seen the settlement of Mount Thompson diminish because of problems with the farm road there flooding every season or so. It floods and it's impossible to travel to a lot of the commonage land. You simply can't access a large portion of land unless you have a dinghy or something like that during the flood time. For years now they've been struggling with this farm road and it is just absolutely terrible. It has done a lot of damage to the whole agricultural industry. The very place where they used to dry onions is in a mess, and the packinghouse has crumbled. Whose duty is it to take care of these areas? I've been tempted just to go there [myself] and rebuild the place where they used to dry the onions and rip down all of the mess that's in the packinghouse. They say well, if you do that, then you'll get in trouble from the government. So in a way, it seems our communities are almost held hostage. Whose job is that to take care of these sorts of issues?

Theophilus Cox

You weren't here, but I recall that my suggestion was to re-examine the whole Subdivision Act. There are certain things that a local government is responsible for, that are spelled out in the act. And what you're talking about is not one of them. So, yeah, that is a central government responsibility.

- Diane Davis Now we're getting started. There's a question there and then I think there are two over here.
- Man Yes, I would like to speak to the issue of the comprehensive plan, to try to answer the question that came before. A comprehensive plan does not happen in isolation. You have to look at all of the various segments because it involves a whole community. As you're looking at that, it is important to remember that what and where the land is does play an important role. We're looking for the best use of land. And that is not going to happen in isolation. And yes, it's needed. Thanks.
- Diane Davis There's one there, and there's one in the back. This woman here.
- Woman Hi, Mr. Cox, Ms. Rolle, thank you for your presentations. This is a question for both of you. You spoke about ecotourism, Ms. Rolle. What role do you think the local government can play in helping to create opportunities for ecotourism in your communities? Or is that something that you see as the central government's role?
- Theophilus Cox Well, under the current budget that the local government receives, there is very little they can do. What previous councillors did, instead of reading the act and becoming familiar with what the act says, was to establish themselves as employment agencies. They went ahead and hired a dray load of people. [LAUGHTER] So if you look at that budget that was given to them, more than half of that budget goes to salary. It presents a difficult situation for the people who are currently in place because that would mean they would have to fire those people that the previous council hired.
- Man Thank you very much. My name is Floyd Armbrister. Mr. Cox, I really like your spirit and I think, as was the case with Ms. Wilson, in order for us to move forward, we have to identify the problems and properly resolve them. For too long, I can only speak for The Bahamas, we have identified cosmetic problems and therefore we always get cosmetic solutions. That's why we still have real problems. We have never really addressed them.
- I listened to the minister and the Former Minister speak, and I realise that we have to give the people who have been elected in the past credit for all of the things that went well in this country, but by the same yardstick, we have to hold them responsible for the problems that we face. Einstein says you cannot create solutions using the same consciousness that created those problems. This is to say that if we continue to do the same things over and over, we will never resolve the real problems we face.

Adam Smith, the dean of economics, said that the production of any society should have a share of land, capital and labour. I think that because labour has never been respected, we have the difficulty where land and capital get all of the benefits] and labour gets none. And we cannot build a society on a foundation like that.

Newbold

That was a comment. [LAUGHTER]

Man

Good afternoon. I'm John Canton, Director of Public Works. So in part, I'm responding to the lady who made the comment about the role of central government. Before that I'd like to say how much I welcome this forum and what a brilliant idea I think it is. I'd also like to endorse the much-voiced sentiment, which is the need for planning. Indeed, that's an issue that is currently being addressed within the ministry. We're recognising the need for a strategic planning unit that actually plans investment. And I think, again, that's a very, very important point because we're talking about governments—the central government and the local government.

The reality is that it's the central government that directs national infrastructure investment because it has a responsibility across a very wide field. I think the sentiment of the current government is that they'd wish to redress the imbalance and re-evaluate the recent historic investment in New Providence so that it is tempered with a greater focus on building infrastructure in the family islands. I can certainly see that happening as the major investments on New Providence come to a close. The NP RIP Project, the Airport Gateway Project and the Sports and Rehabilitation Project will all be finishing this year. So I think that once these current projects conclude, with the finance hungry, heavy infrastructure investment will start to find its way into the Family Islands. We're already seeing this shift with the North Abaco port. In this context it is important for me to say that the one key infrastructure project that I've got on my desk at the moment is for the Exuma port and highway. That project is being financed by Caribbean Development Bank.

I think the only other observation I'd make is that planning has to be followed by prioritisation. Prioritisation then needs to be followed up with an action plan. We're hoping to produce something like a three-year budget, which will mean that there is some continuity of investment, and hopefully we will get cross-party agreement, which is a move that has only just happened in the United Kingdom with their national infrastructure plan.

Here we are in 2013 and it has taken us this long to recognise that infrastructure investment shouldn't be a game of

political football. It should be a national policy with cross-party agreement. I think perhaps that's a lesson we could learn. I don't know what the models in the United States are, but that's certainly the direction the United Kingdom is now moving towards. They recognise in the United Kingdom that you cannot afford to have construction be an economic and political regulator. I'm sorry if I've overstayed my welcome in terms of what I've said. [LAUGHTER] I think I'll just hand it over to Terran Rodgers [Architect, Ministry of Public Works & Urban Development] who can give, I think, a very specific response in terms of the packinghouse. But I do think the final thing I'd like to say is that unfortunately, we're doing all this against what couldn't be a more difficult economic background. It's very, very good to have a wish list, but it's a very, very different matter to have extremely tight economic resources. In the headlines this morning was a call for all government departments to cut their spending by 25%. So this plan really has to be very, very wise. And we're calling for collective wisdom.

Newbold

We have some very anxious ladies in the front that would like to pose a question.

Woman

Good afternoon. Esther, this one is for you. I'm wondering, because I'm hearing it and it sounds a bit difficult—how empowered is the committee, the local government council in Exuma, and has the council partnered with any other entities to try and implement some of the sustainable tourism and eco-friendly things that you talked about in your presentation? Have you partnered with NGOs or anything like that to be able to implement those kinds of things over there?

Esther Rolle

Well, how much power you say we have as local government? As an administrator, I say that we only have so much power as a local government to act upon. We can only do so much. All we can do is to encourage people in the community to do what they can to boost the tourism. Aside from that, we are mostly powerless because we don't really have the finances. The money basically goes towards paying the workers.

Eric Carey

I'd like to add something to help address that. Rochelle and I are working on a number of projects. One of which is part of a major Global Environmental Facility, a GEF funded project. And one of the elements of that is to develop a sustainable tourism plan for the Exumas. I realise we've been doing a lot of work in Black Point and in Staniel Cay and also in [Little] Farmers Cay. Our objective is to develop a system that will create opportunities. We intend,

very bluntly, to have the folks that poach in Exuma Park to become entrepreneurs. They're going to be scuba certified and snorkelling certified. We're going to create snorkelling trails. We're going to address this issue of harvesting top, to make sure that it's harvested in a sustainable way.

A lot of these issues are being addressed through this GEF project, and it's actually going to be rolled into a lot of the work that we do in Black Point as a community. So I think we're going to be able to address a lot of these issues that have been plaguing us as an organisation. And some of the ministers asked about what we might bring to local government or to the administrator. They wanted to know what we're trying to bring as a model, a system that works, that will bring real economic opportunities to Black Point. The idea is to take what we've done in the Exuma through that project and start looking at other islands like Abaco. I do think there are some good opportunities that are beginning to be realised that can provide economic sustainability for the communities.

Newbold

Mr. [Reginald] Smith also wants to make a comment relevant to that question.

Reginald Smith

Thank you very much. I think one of the points was that we have a framework. We have a framework that is working in other areas of the country. The question is how do we make it work in Exuma? How do we make local government actually work? We have elected officials in positions that do nothing, really, and so the idea is, how do we get them to work? One of the suggestions made in a meeting that we had recently in George Town, was to identify what it is these people are supposed to do. What does the chief councillor do? What's his job? He has absolutely no idea. What does a councillor do? He's elected, but what's his job? We have a councilman right here, who is head of West Township; who creates his job description? Glen Davis, right here, he is out trying to do things in the community. But the framework within which these folks have to work gives them no specification of what it is they do. So if you hire someone who's never had a position like this, maybe doesn't even hold a job, maybe doesn't even work, how does he know what to do with this elected position? He doesn't. If we want to make a change in local government, I believe we have to start by defining these positions. I think as the administrator said, elect our chief council. Well, let's give him a job description. Pay him out of that \$500,000, or give him a way of finding more money. You know, we always talk about how much money we get back. But how much money do we produce? We could increase what Exuma

produces if we have a local government that can function. I believe that maybe one of the things we have to do is define what it is these elected people do. Once we know what the job entails, we can put people in positions that can actually do these jobs and make a difference. That's it.

Diane Davis

I think we're going to have to end this session because we have another session coming up, and we're running late. But I wanted to make some general comments. Building on all the really important observations made by people in the audience and our two speakers, I noticed that one word that hasn't come up yet is "accountability." I think that this is what we're talking about. Accountability is not just something in terms of expectations of citizens and elected officials and vice versa. It seems to me that in this context, the issue is accountability across the scales of government. So if the local government doesn't feel accountable to the central government because it's giving its money and not getting anything back and vice versa. So there are lots of lost opportunities for connecting projects at these different scales through lenses of accountability. I think that is something that we can think about in the future and how that relates to planning. Because a couple of people—and I'm very happy to hear, being a professor in planning—said that planning seems to be the magic solution. But let's not forget that it is who is doing the planning and what is the mind frame that is in question. We have to ask what are the priorities? Are they local or national? I think there's no easy answer, but you want to actually have this multifaceted conversation going on all of the time.

What's good for Exuma should be good for The Bahamas and vice versa. So those are the kinds of institutional structures and conversations that you want to start. It is important to start linking planning to accountability across the different scales of The Bahamas, because the environmental problem as well as the economic sustainability problem cannot be solved at one small site. It just can't be. So you have to be constantly thinking about how to leverage opportunities and resources across multiple sites that are both helpful for the local communities, all the while building a more vibrant and unified Bahamas in general. So I think we'll end and move on to the next panel. Thank our speakers, please. [APPLAUSE]





Session 4

Socio-Cultural Issues

Gareth Doherty

This panel is on socio-cultural issues and Susan Snyder and George Thomas are the moderators. Susan Nigra Snyder is a registered architect and a partner with George Thomas in CivicVisions, a Philadelphia based firm. Susan investigates how local identity is expressed, maintained and able to develop, while being responsive to global and media forces that affect the realms of contemporary life. She has received University of Pennsylvania research foundation grants to study forces of consumption on urban form. She serves as chair of the Philadelphia Redevelopment Authority Advisory Board for Design. She is also a member of the fine arts committee of the Delaware Valley Smart Growth Alliance Jury and was one of my favourite professors while I studied at the University of Pennsylvania.

George Thomas is a cultural and architectural historian and has written and lectured widely on nineteenth and early twentieth-century American architecture, with the focus on the relationship between cultural innovation and architectural design. His teaching seeks to understand the interconnections between history and patterns of modern life. He has written many, many books, which are much too numerous to list right now. Thank you, Susan Snyder and George Thomas.

**Culture is really how we communicate meaning.
Culture is really something that is iterative. It's
dynamic. It's an issue of values. It's an issue of identity.**

Susan Snyder

We're very pleased to be here. I will say again, we're very pleased to be here. It seems to me that the entire day has been about culture even though this one session is titled, "Socio-cultural Issues." What makes it so interesting is that culture is not any one medium. At lunch we heard it's the spoken word; it's dance; it's how you treat each other; it's architecture; it's writing; it's music. Culture is really how we communicate meaning. What we've been talking about today are the values and ideas that are expressed through that meaning. What is the identity? Culture is really something that is iterative. It's dynamic. We learn from that. It's ongoing. It's changing. So it's a very, very interesting topic to

try to get to the essence of. It's really not an issue of style. It's an issue of values. It's an issue of identity. And something that we cannot predict where in the future it will take us.

George Thomas

Everything that Susan said I totally agree with, so you have to understand that at the beginning. I'm an historian, Susan is an architect, and we see the world as sort of 90 degrees to each other and we basically move forward together, which is sort of fun. One image that comes to me as an historian of the twentieth century is Ezra Pound's great claim that the artist is the antenna of the race. And so we've got a great artist here to plug us into the multiple dimensions of art as it helps us understand the world we come from, but that we don't yet know about. This is, of course, the great role that art always plays. The counter to that, of course, is that we as historians and people who look into history, do so in order to better understand how we got to where we are, not because we get to run the same race over again—because that doesn't ever seem to happen—but because it gives us insight to our world. It comes to the side of history and anthropology and the two dimensions that we're going to try to bridge here as we put this session together.

William Price is an architect I did a lot of work on as a Ph.D. student, and then later actually wrote a book about. One of his great ideas strikes me. When asked why cities are so ugly, Price made the case that cities only became beautiful when the people who lived in them were beautiful. Beyond that he said that once people were happy, once their lives were good, once their lives were rich, only then would they make beautiful cities out of their own engagement. What I think we've seen here today is an extraordinary thing. We see all of you here all day so engaged. And our experience looking at America would be that there would have been three fistfights, four or five politicians shooting each other and all sorts of other things. So this has been an extraordinary experience.

We're going to kick off today with Stanley. However, Susan is going to introduce Stanley because they're old friends.

Susan Snyder

Stanley Burnside received his Bachelor and Master of Fine Arts degrees from the University of Pennsylvania, where I knew his brother, Jackson. In 1979, [Stanley] returned to The Bahamas and became a member of the Saxon [Superstars], and later a founding member of the One Family [Junkanoo] Group. He went on to teach at the College of The Bahamas. He is a co-founder of the Collective called B-C.A.U.S.E. This is really clever as it stands for Bahamian Creative Artists United for Serious Expression. B-C.A.U.S.E. promotes Bahamian art internationally. Burnside's

work remains committed to his belief that Bahamian art is a powerful tool in socio-economic development.

Stanley Burnside

Thank you very much. Do I really need this microphone or are you recording? All right. It really is quite amazing to see so many familiar faces here. When I told [Dean Mostafavi] that I was going to be bringing something different to this, he said, oh boy. He was a little worried I think. But I promised him that he wouldn't be charged with anything as a result of my presentation.

[LAUGHTER] That I can promise. But let me just say that I'm going to look at it from an artist's perspective and you know we artists are dreamers. You have the technician here who will talk about the project from a more pragmatic point of view. But we artists think in an abstract way. And I like to think that The Bahamas is [PERCUSSION PLAYING] all about the rhythm. [PERCUSSION PLAYING] The rhythm of the drum. [PERCUSSION PLAYING] The rhythm of the people. [PERCUSSION PLAYING] The rhythm of the people, who have been here all day, listening to all kind of talks. [LAUGHTER] And who probably want to get a little relief. That is what culture does. Culture lets me talk about the family in Exuma, living on the ocean, right? They don't have any cash. But they have the ocean that they can go to every day. They can climb a coconut tree, get the coconut and get some coconut juice. They've got fruit in the gardens. They can eat, man. That's wealth, right?

I am a great believer in the genius of the Bahamian people. I believe that we have the genius in our own hearts and in our own minds and our own heritage to create the plan for the future of the Bahamas.

Now what happens when the big [development] project comes in and takes over the beach? Sure, it creates jobs, and puts cash in pockets, but the beach is no longer available. You want me over where? Yeah, OK. What happens then? That is my concern as an artist. So I feel that conferences like this are so important because you get the opportunity to communicate with people and listen to what their needs are. I am a great believer in the genius of the Bahamian people. I believe that we have the genius in our own hearts, and in our own minds, and our own heritage to create the plan for the future of The Bahamas.

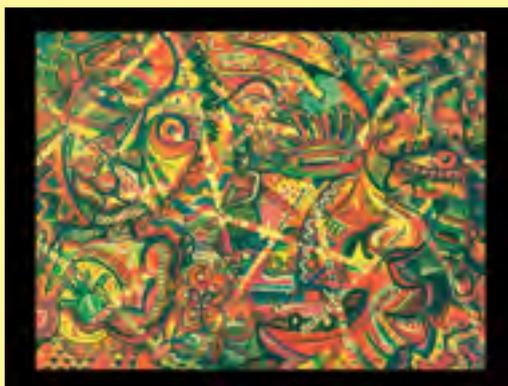
Many of us do things from scratch. There's a thing called Junkanoo. One very famous Bahamian musician said it's called

Junkanoo because the artists make new things from junk. So it's Junkanoo. And Bahamians can make things happen. Bahamians went out to [Arawak Cay] years ago and they decided they wanted to make some restaurants. And so they started some ramshackle restaurants from scratch, from junk. Nowadays those restaurants are one of our tourist attractions. As an artist and as someone who has studied art abroad, one of my dreams is to exploit the talent that we have in this country. We are a country of thousands of artists. I'm sure that per capita we have more artists in this country than anywhere else in the world. I'm certain of it. On Bay Street, on Boxing Day and New Year's, you have thousands of artists. Thousands! And I'm not just talking about craftsmen. Many of these people who participate in Junkanoo are artists who could be introduced to more permanent materials and who could feed their families with their talent. That is my dream. My dream is to exploit the talents of Bahamians in craft and in art. We have a multimillion-dollar souvenir industry. Those of you who understand what I'm talking about, why can't we marry those artists with this industry? It seems very simple. But I contend that we're looking at employment. We're looking at industry. Take Junkanoo—the designs and the colours—now imagine a textile industry. Imagine a clothing industry. Imagine prints and t-shirts and all kinds of items with artistic interpretations of Junkanoo designs. Why can't we do that? I mean it's just sitting there and why haven't we done it? I say that when you talk about developing The Bahamas, you have to talk about the empowerment of our people. And you have to look around to see how we can create opportunities to empower Bahamians. We need more opportunities for Bahamians to control their own destiny. That means more opportunities for Bahamians to be self-sustaining to make livings and to feed their families. I assert that we are sitting on a gold mine in Junkanoo. Junkanoo is the art of collaboration. It's all about artists getting together to create works of art.

So I think that we are uniquely qualified to collaborate with each other. Given the right kinds of communication, we will be able to come together with a plan to develop our country. We're uniquely qualified to collaborate with all kinds of people. And at the end of the day, I think we will have projects that are self-sustaining because there is the potential for Bahamians to rise up at some points and wonder why they're not in control of their own country. You have to be very, very careful about that. There's a balance that has to be created between independence and trying to be Western. Bahamians are very much into making money, but Bahamians also have to be concerned about how much of this country we own. How much of this country will our

children own at the end of the exercise?

As an artist, I can say those things and get away with them because they expect me to be crazy. Right? [LAUGHTER] But this is the art of collaboration and we are a country of Collaborators. I, along with my brother and the artist John Beetle, created a collaborative series of paintings called Jammin'. The three of us worked on all the pieces collaboratively. We had worked in the Junkanoo shacks together on Junkanoo pieces when we were younger and we took that same spirit of collaboration into the studio and created paintings. These are some of the paintings. [MUSIC PLAYING]

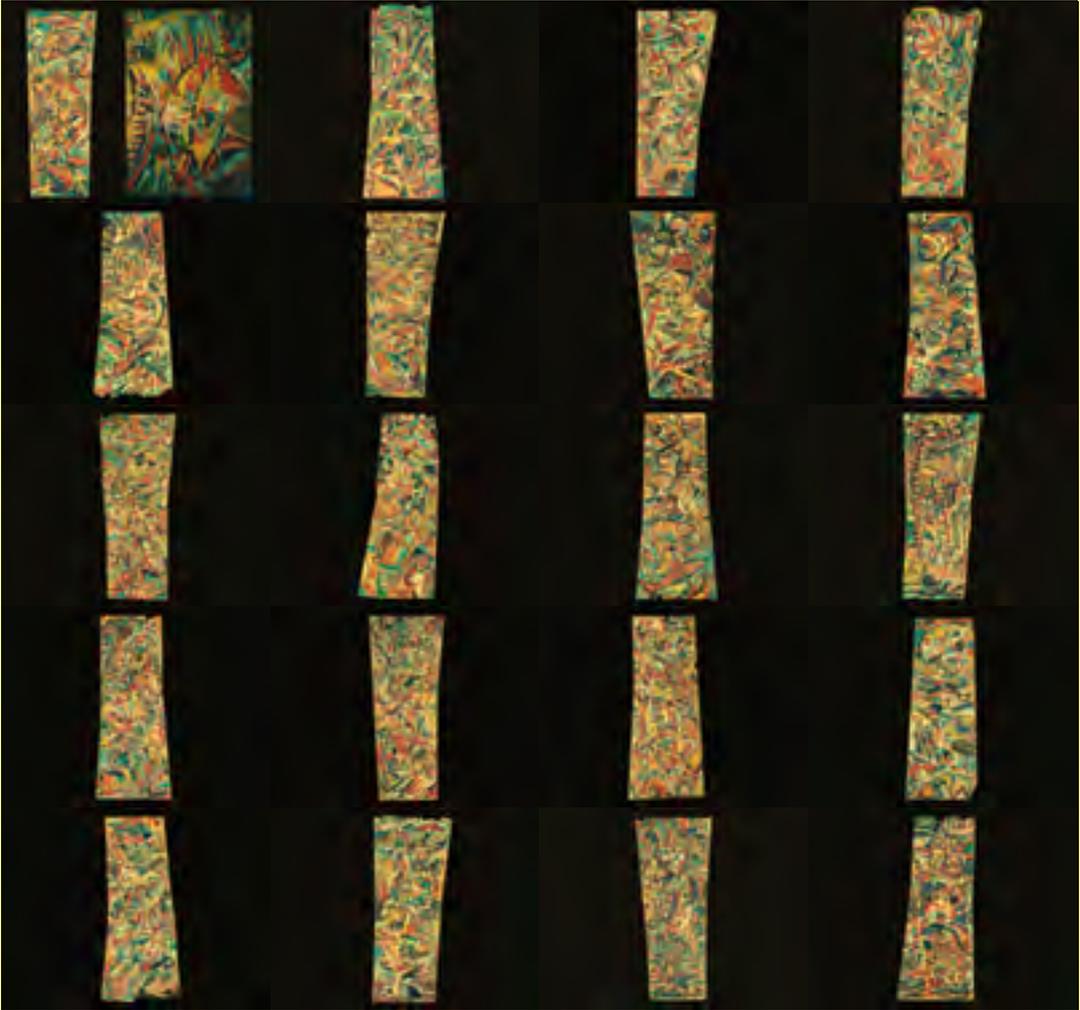


This is the first piece we did together. The amazing thing about these works is they all look like one individual created them.

This is the group called B-C.A.U.S.E. It is the collaborative group that we started together.



This is my brother, Jackson, and we are working deep in the winter. It was very, very cold. It was about 65 degrees. [LAUGHTER]

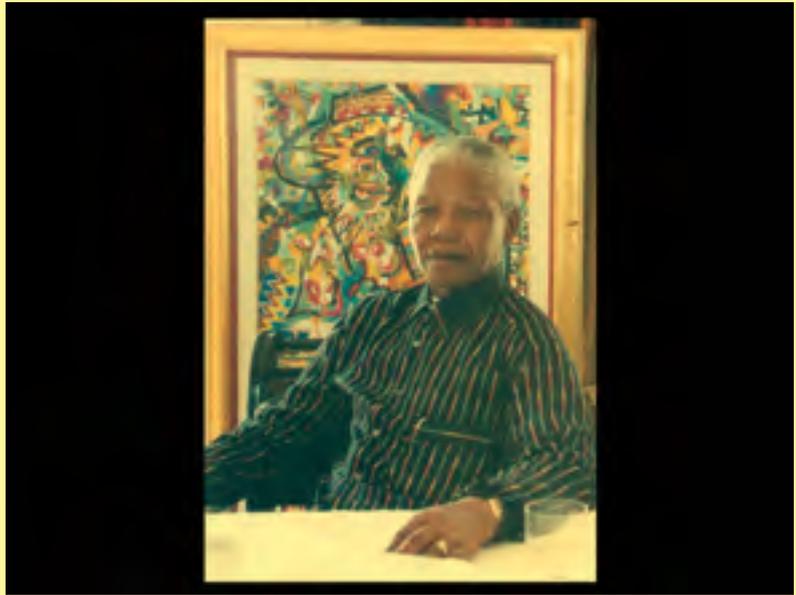


This is a series of paintings we did for Atlantis. Some of you might have seen them. We took some of this collaborative work to Atlanta for the Olympics and our cousin, Sydney Poitier, opened it.





But I'm showing these just to show you an example of the kinds of collaboration potential we have in terms of art in this country. So many Junkanoo artists work together and have been working together for years and I think we have to find a way to take those Junkanoo artists and show them how they can use permanent materials to create works of art that will last and not be perishable, just like Junkanoo.



OK, this is the last piece. A young man you might be familiar with acquired it. [LAUGHTER]

Well, I'd like to introduce my accompanist, Mr. [Rik Carey], the leader of the Baha Men. [APPLAUSE] and Reuben Deleveaux, master drummer. [APPLAUSE]

Junkanoo is a wonderful thing. I'm ending right now. [LAUGHTER] I know you've been here all day. I mean there's a thing about Junkanoo, it's about getting free, you know? You see people when they dance and they look like this. [LAUGHTER] They're just gone. They're free. And everybody can do this. Everybody. So if you get the leaders of the project and the locals together and let them dance some Junkanoo [LAUGHTER], you'll have a great collaboration. I want to thank you for inviting me. [APPLAUSE]

George Thomas

So the good news for Michael Pateman is he gets to follow Stanley. [LAUGHTER] And Michael is the senior archaeologist for the Antiquities Monument and Museum Corporation at the National Museum of The Bahamas. He holds a Ph.D. in regional development planning and an M.A. in applied anthropology, public archaeology. Dr. Pateman's research aims to integrate community-based indigenous knowledge and scientific knowledge to develop effective plans and policies for the sustainable protection of important cultural and natural resources, most particularly Stanley [Burnside]. His other research interests include pre-Colombian diet, political ecology and heritage management. So go for it.

I was trained to be a technician for the telecommunication company. I used to fix the tower when it broke but now the technology has moved so fast, I can't fix it anymore. So they bring people from Nassau to fix it. Sometimes it can take two to three weeks, with no connection on the island. We have to take a boat out to the sea and get a signal from the next tower. I need a course to relearn how to fix that tower myself.

It is cheaper to go to Nassau than to George Town for dental care. The dentist comes two times a year to clean and do preventative care. But sometimes he can't even do that because he has limited equipment.

Well, I want to thank the organisers for including me in this wonderful conference and I'd also like to thank whoever put together this programme for putting me after Stanley.

[LAUGHTER] That woke everyone back up. But just to give a little background. As was said, I work with the Antiquities Monuments and Museum Corporation and we are the principal heritage conservation agency for the country. We are a quasi-governmental agency and just by saying what I did, that shows we have a massive mandate.

This presentation has changed multiple times starting from last night when we had a meeting with all the speakers and so forth. I changed it then. In fact, just sitting here, I started changing it. So I'm glad I decided against PowerPoint.

I'm looking at sort of this central question of how we consider the concept of sustainable economic development with cultural heritage. And I think this sort of ties in almost everything that we've been talking about. During my Ph.D. studies, I felt like I was a lone wolf a lot of the times. I was the anthropologist in a group of economic development people. Everybody had a background in economics, planning, or architecture. Everybody was concerned with economic development but I always focused on culture. Yes, culture is an included part of sustainable development. However, it is often overlooked. In my opinion—and this just might be my anthropological background—culture is the most important part of sustainable development. And one of the broader questions that I'm going to look at here is that of heritage or cultural based tourism and ultimately how it can lead to proper planning and sustainability.

So what is Bahamian cultural heritage? I think Stan gave an excellent example but I don't think, and a lot of people have said this, that this is something that you can put a definition on. There are just so many diverse islands, and on all of these diverse islands, we find just as diverse and rich heritage. Our culture changes, ever so slightly, with each island we go on. Even the way we speak, if you travel to a lot of the family islands, you find the dialect is faintly different. You would find that the way they make their local bread is different. Even when I went to the Turks and Caicos Islands, which are culturally and geographically very similar to The Bahamas, the food was slightly different. I had peas and rice and it was different. I had Crack Conch and it was different but it was still Crack Conch. So this is something that you can never really put a definition on. We have to remember that culture always evolves and changes.

One of the arguments I've heard a lot locally is that we don't have a Bahamian culture because we take in and adapt things. We try to bring it into our own. But my response to that is well,

that's part of culture. Culture changes. One of the problems I have, and we've even talked about it here a little bit with the tourism potential, is that we sell this concept of sand, sun, sea, people, and food when we talk about culture and talk about The Bahamas. We also sell Junkanoo. But we have to remember that our culture is not only these things and it's not only Junkanoo. Yet these are the things that we Bahamians tend to sell.

I sort of made a little note to myself during another presentation in which we talked about using sustainable development to improve the quality of life. But to whose standards are we improving these qualities? We look at a lot of indigenous communities that we've developed but the quality of life has gone down, even in The Bahamas with the recent electrification of a lot of the Family Islands. A lot of people will say this is development but if you talk to some of the older residents of those islands, they hate it. It really changed their way of life. Phone systems were only more recently introduced throughout a lot of the Family Islands. That, once again, changed the way of life and it put a huge economic strain on islanders that weren't used to these electric and phone bills. So the question remains, did we really improve their way of life?

But I just wanted to talk about some aspects of our cultural heritage and especially our historical cultural heritage. This begins with what I'll call, "Lucayans Legacy." Lucayans are the first natives to The Bahamas and although they are gone today, they left a lot of things behind, including a lot of words that we use today. "Hurricane" is a Lucayan word, as are "barbecue" and "hammocks," and so forth. Those are Lucayan words. And although it's taught that by 1513, all Lucayans were gone from The Bahamas, we know from archaeological research that, especially on Eleuthera, Lucayans were there when the English began to settle the islands. So if we want to put that in the context of Exuma, which isn't far from Eleuthera, there's a possibility that there were indigenous people in The Bahamas when our current cultural ways started to form. So how much of their culture and lifestyle has survived today?

We also have the legacy of Columbus that we like to push under the rocks somewhere. But one of the arguments I also make is that the landfall of Columbus—whether it's Cat Island or San Salvador, I won't get into that argument. [LAUGHTER] It's the single most important historical event in the New World. And we Bahamians, with the exception of those who actually live on San Salvador and even some people on Cat Island, this is a cultural event and our heritage that we often disregard. For example we now have the National Heroes Day instead of Columbus Day. I think that's a discussion we need to revisit, to evolve our culture.

We also have a lot of Spanish cultural heritage. A lot of the early Spanish colonial explorers of the New World wrecked in The Bahamas. In the early 1500s, there were Spanish shipwrecks throughout The Bahamas, including in Exuma where the earliest known, or at least earliest found wreck in the New World is located. This is an aspect of our culture and our heritage that we need to understand, know and share. The biggest aspects of cultural heritage from our historic standpoint begin with the loyalists and their slaves. In Exuma, this is really, really prominent because one of the biggest slave holders in The Bahamas was Rolle, and if you go to Exuma now, everybody is named Rolle. Well, at least in my experience. The propagation of that name over the years sort of shows a direct linkage to our past, tying these legacies, good and bad, to our current culture.

In Exuma, and I'm going to focus the rest of this on Exuma, the culture and the heritage really starts to grow after the loyalists and their slaves. We get into the emancipation and how the lifestyles changed and grew. And I point out a lot of stuff that Eris Moncur talked about at lunchtime. The development of dance, the development of music, the development of foods; all of this really took forth after emancipation. We also have another really significant event in Bahamian history, our independence, which also marks our culture and heritage. So how do we protect and sustain this heritage? Well, before we talk about that, let's look at the threats first.

As has been talked about throughout this forum, we have ad hoc development. And none of the planned developments considers culture and heritage. I have to say, when you do the new highway in Exuma, let's make sure to look for the historic sites first, so we can ensure their protection and involve them in the planning process. We have unsustainable growth and Exuma is a place where large hotels on little islands destroy the culture of those islands. The Four Seasons is a perfect example of that. I went there as a boy a lot, I saw it change with the development of Four Seasons. A lot of people talked about how they had to bring in the workers. They brought in a lot of people from New Providence, many of whom were construction workers. Where did they go after the construction was done? A lot of them stayed. They brought their way of life into Exuma. Many people have remarked—a lot of my friends from Exuma—at how their lifestyle changed with the construction of Four Seasons.

Another big threat to culture—and no offense to the politicians in the room—is uneducated politicians. [LAUGHTER] Our importance of culture is something we have to make sure that our politicians understand. Culture, in my opinion and a lot of scholars' opinions, is one of the most important things about

what we are, and if we don't protect it, then these things [that identify us as us] will go away. And that actually ties into uneducated people.

So how do we fix this? Well, some of the things started coming up already. One of the key things is local buy-in. When we talk about these tourism projects and I hate to use tourism as an example of development because it keeps us in this service based economy, which really has shown itself, over time, as not very sustainable. But if we look at tourism, cultural tourism is the number one reason why people travel today. Yet, what do we do in The Bahamas for cultural tourism? I can give an example of New Providence. At work, we manage the Fort Fincastle environment. That is the most visited site in the Caribbean by tourists outside of downtown Nassau. It is the number one visited site in the Caribbean but it's a dump. We need to convince our politicians, our leaders, and our people that an investment in our culture and our cultural heritage can return economic gains. So local buy-in is a key thing.

Another sort of solution that I look at is the need for an impact study on way of life. When we talk about massive development on islands or any sort of development, we should look at how is this going to change the way of life. We should ask ourselves the question: Is this true development or not? I am a huge advocate for the cultural resource management study. The Bahamas needs to stop internalising things. Too often we like to claim that we don't need international help. The mind-set is that just because they do it that way elsewhere, doesn't mean we have to bring it here. But there are important agencies like UNESCO, and I wish Franklyn Wilson had stayed here because I felt that his appointment as the chairman of UNESCO, although he resigned, was probably the most important job that he had because it is an agency that dedicates itself to the protection of culture. There are five cultural conventions in UNESCO, but The Bahamas has only signed one. It was probably the least impactful one of all of the conventions. We also have the World Heritage Convention that's concerned with the built and natural environment, which The Bahamas has not signed. We have the Tangible Cultural Heritage—that convention gives money to countries to develop cultural policies—but The Bahamas cannot benefit because we haven't signed. There is the Intangible Cultural Heritage, which we haven't signed, and then Underwater Cultural Heritage, unsigned. And all these forms of heritage are things that The Bahamas, Exuma and the islands have, but the people are not seeing their benefits.

This goes into my final point. Education is key. We can't have forums like this and not go out and educate. I asked the question

in one of the earlier sessions—when we do these projects on the Family Islands how many government officials actually go out into the community and educate the people, outside of local government? We can inform local government and they can inform their constituents but some information will be lost. But when we present it, we can educate the people and they can understand the importance and that's where we begin to get the local buy-in and we can build a sort of bottom up understanding of the importance of our culture and the things that we're trying to do. Thank you. [APPLAUSE]

George Thomas

Michael, I thought you were going to dance. [LAUGHTER]

The dynamism of culture is not something that is fixed in stone forever, but something that has a dynamic quality and a collaborative quality as it goes forth, it gives a different edge to the idea of planning and zoning as a fixed idea but that it might, in fact, have a collaborative impact.

Susan Snyder

Before we begin the questions, I just want to throw out there that I think that tying together the dynamism of culture that Michael is talking about with the collaboration that Stanley is talking about, gives a different edge to the idea of planning and zoning as a fixed notion. Moving forward, the collaborative impact should be viewed not as something that is fixed in stone forever but something that has a dynamic quality and a collaborative quality that drives it forward. This is something that I know exists in Cambridge, Massachusetts but doesn't exist in many other places in the United States. There's a lot to learn from impact zoning instead of fixed zoning, which would aid the plans and bring these two ideas of dynamism and collaboration to the table and always bind them together.

Everybody has their own vision of The Bahamas, their own fantasy of what is the perfection of this place. And part of the game that all of you have to grapple is all the different visions.

George Thomas

I want to say one other thing that struck me as I looked across the room and thought of all the people that are here. We are a nation of people with different ideas and interpretations. We each have

our own vision or fantasy of what is perfection of this place. We are always grappling with so many different visions. So to me this was a wonderful way to bring together ideas. And with ideas, there's certainly going to be questions.

Susan Snyder

Comments?

George Thomas

Comments? Criticism?

Woman

I'd just like to ask a question based on the comment that Michael made about large developments that impact the way of life of communities. When I worked at the BEST Commission, we had flagged for Exuma the fact that one of the large developments had resulted in an increase in prostitution and sexually transmitted disease, but we were told by the Administration [of Exuma] at the time to stick to environmental issues and not ask those types of questions. So what I wanted to know—and I realise this is mainly a design and planning project—but is there any scope to look at the social issues that are in the Exumas? There is teenage pregnancy. There is drug use. There is alcoholism. And how do you address those issues while trying to make the Exumas sustainable?

Michael Pateman

Well, if I could jump in. Stacy, I've had that similar sort of thing come up before. I know with the Rum Cay development, I brought up the same thing about it being such a massive development for such a little island. I also inquired about the social impacts and was told the same thing. However, while this forum is looking at sustainability, it has to understand that the social issues are equally as important and I think they fit into this session, although we kind of overly focused on culture. So I think all of those have to be addressed, if we're going to come up with a true sustainable plan.

Man

Mark Daniels again, from the Leon Levy Nature Preserve in Eleuthera. And just a comment on what you had said, Dr. Pateman, about preserving culture and cultural knowledge. If most people are not familiar, we are a native plant preserve that promotes and celebrates our native plant species and educates our visitors, which are generally local students and tourists, about the island and about the traditional uses of plants that have been used in Eleuthera and The Bahamas throughout time. It is an interesting experience, watching the students enjoy themselves at the preserve, looking at plants that might have been used to treat the cold or the flu, or sitting down and making bush teas, just enjoying the experience. Visitors to the island appreciate the



fact that we're trying to preserve knowledge and pass it on, through experience, and by word of mouth, which we would have traditionally from our grandmothers—I remember mine telling me to go boil this or that, something that was found in the backyard, because I had a slight ache. So we feel as though we are serving that role and continuing the transference of traditional knowledge.

I think this type of [communication] model can be replicated in every island, and not only having to do with plants, but as you said, historical buildings and features beneath the water. I know that the potential for it is great. And so I just wanted to say from my point of view that people are very much interested and there is a value in ecotourism and it has attracted many guests since we've been open, only two years now. Many people have returned for multiple visits and we've gotten very positive feedback about the experience we provide. And so I would like to see more projects like ours done throughout The Bahamas. So I just wanted to comment.

Eric Carey

That's what we wanted to do at the Botanical Gardens but they wouldn't let us do it.

Woman

Good evening. First, I'd like to say, you couldn't have chosen two better speakers for this cultural presentation. [APPLAUSE] Mr. Pateman, I just want to know for the record, in terms of the Caribbean, what facts show that visitors come to the Caribbean primarily for the sun, sand, and sea? Isn't it the culture that binds them to the destination, and makes them come back over and over again? That's why I like Eleuthera. Eleuthera was dead before that preserve. I don't know how many of you have been there. It truly reflects the culture not just of Eleuthera, but also of the whole Bahamas.

But I have a little issue for Mr. Stanley Burnside, my dear friend. I have one issue in terms of Junkanoo. Junkanoo fellows, you have to do more in terms of the entrepreneurial aspect. For instance, I have a little vacation rental property and my guests all go to Junkanoo. They usually come back and complain about there being no souvenirs. No Junkanoo souvenirs. Why? Why no costumes for sale? We could all participate, and so forth. I think there's so much more that can be done. I think you should look at this, you spend so much time on the two events and not enough is being done in terms of truly promoting the culture of Junkanoo. There's so much more. I have a million and one ideas I would like to throw to you. But really, I'm preaching to a believer because you and Jackson and some of the others have been doing this. Just look at what you did with Doongalik [art studio].

And look at some of the other projects you did with your artwork and so forth. But the Junkanoo community has tremendous potential that is not being exploited.

Stanley Burnside

Amen. Hallelujah. [LAUGHTER] You're preaching in the same church. That is one of the tourism icons of The Bahamas. Give her a round of applause. [APPLAUSE] Mrs. Angela Clare. And I agree with you, Angela. I mean my brother, before he passed, had this saying that by the year 2020, more people will come to The Bahamas for culture than for sun, sand, and sea. And I agreed with him and now with you. That's possible. But we have a lot of work to do. Sitting a few seats over from you is Angelique McKay, who has done a lot of work in that regard and has some tremendous ideas that she has put into fruition. I think I agree with you. We're sitting on a gold mine. I mean there are so many opportunities for entrepreneurship in Junkanoo. I have a group that performs at Paradise Island twice a week. On Wednesdays at 9 and Saturdays at 9:30 in Marina Village at Atlantis and we've been performing for ten years now. I prove that's a sustaining employment opportunity. And I think there are so many other opportunities that can come out of this thing called Junkanoo. So I totally agree with you and thank you so much for all the work that you've done in tourism and keeping us grounded. Thank you.

Man

Can we add on to that though, while we do have people coming for the sun, sand, and sea, part of the reason for that is because we do such a poor job of selling our culture, not to tourists, but to ourselves. Now that you're on our board, you see the fight we have with the locals for admission to sites. We have to educate our people better. And, by the way, Angelique works with us now. [LAUGHTER]

Man

You're lucky to have her.

Chris Maxey

Yes. I would just like to say that I love that guy, Stan Burnside.

Stan Burnside

I love you, too, Chris Maxey!

Chris Maxey

Yeah, baby. [LAUGHTER] He literally is a symbol for creativity and imagination. And this is not a Chris Maxey idea. I'm borrowing the opinion of many great thinkers. What will be the trick to make these magical places work is our human creativity. And I'm inspired that you're part of this conference and I think a lot of credit needs to be given to the dean because I know from just looking at his website that Dean Mostafavi is all about creativity and imagination and doing things completely different.

Imagine that instead of a golf course, we build an agricultural park. What a crazy idea? Thank you very much. [APPLAUSE]

George Thomas I am jumping into this conversation because I'm hearing things. It seems like there is a need for an entrepreneurial centre in this nation that helps people bring ideas to realisation. Michael was explaining to me that there is one, but it's political. So I thought he would help us explain. [OVERLAPPING VOICES] [LAUGHTER] Help us understand.

Michael Pateman I think it was best said that I work for governments that don't kill me. [LAUGHTER]

Stan Burnside Can I say something? I'm developing a programme now where we have identified a few Junkanoo artists who happen to be really, really fine artists but who have never used any other material other than Junkanoo. So we want them to be able to paint and sculpt and make items that can hang on walls in museums and go into sculpture gardens because we feel that every year these artists are just not using their talents. You know? And I have friends who come to The Bahamas every so often, who I studied with in the United States. Artists who know about art and other artists' talents and they look at some of the guys working in the Junkanoo shacks, just drawing on cardboard, and using cardboard to create sculptures and they don't understand how their government could just ignore all of that raw talent. I hate to say it over it again but you're sitting on a gold mine. The creative talent of Bahamian people in Junkanoo is a gold mine. And I agree with you. It's not just Junkanoo. I mean it's so many other areas that are just as important as Junkanoo. We really, really have to find a way, like Angela said, to exploit it. I just wanted to say that.

Man Hi, good afternoon. My name is Cameron Saunders. I'm a deputy park warden for the Bahamas National Trust. I guess the question came to me in one of the earlier sessions and I thought I'd wait until now to bring it up. In terms of education, I want to know if in the schools, the high schools particularly, there are any fundamental economic classes or information being given to the students? And if there isn't, I want to know if it could be incorporated into a mandatory curriculum? I mean, as everyone is saying now, talking about culture, we are people. Anybody can be creative, but to market creativity and mesh it with business tactics enables a more pragmatic way to use creativity. I wonder if you could speak to that, please?

Stan Burnside

Well, I'm also a chairman of the board of the National Art Gallery of The Bahamas. The education officer at the National Art Gallery has developed a teacher's kit that traces the whole history of Bahamian art from the beginning to the present and they have given these kits to the teachers in the various schools. I think that's only the beginning of an education process focused on the importance and the contribution of artists in this country. I don't know if that answers your question.

Culture is something that changes and evolves. We breathe it. We act it. We do it. Almost everything we do can be tied back into our culture.

Michael Pateman

We also have an education officer in the process of developing things for the schools, but a lot of the cultural heritage that I was talking about, and what we focus on, are taught in history. Unfortunately history is not a mandatory subject here, so some get it, some don't. But culture is something, in my opinion, that changes and evolves. So that would be something that's difficult to teach in a classroom setting, because it's our culture, we live it. We breathe it. We act it. We do it. Almost everything we do can be tied back to culture. And so I think one of the big steps has to do with a national, cultural policy, which I know is being drafted. I don't know where that ever went. And we need cultural legislation to help really mandate these things that we unfortunately don't have.

Reginald Smith

We also need one other thing to add down here. We need to use Junkanoo ourselves, as a people. And now we've done something. This is an ad, people, so I hope I don't have to pay for it. This coming Saturday, we are going to have the second annual Exuma Cancer Society Ball. One of the things we did last year, and plan to do again this year is make it a competition that is also a masquerade ball. The theme is going to be Junkanoo. So the masks have to be Junkanoo. We're giving first, second, third, and fourth place prizes to the best mask made by an attendant. There are judges and we intend to have this be an event every year. It's the masquerade ball, the cancer society masquerade ball. Everyone has to enter their mask into the competition and they also have to make the mask, or have it made. You can't buy a store made mask like a lot of us did last year. So that's one way that we can get Junkanoo into our culture more, by using it in different ways like this. And we're looking forward to it, so if

you're in Exuma that night, even if you don't have a mask, come. But if it's possible, please bring a mask.

Eric Carey

Because this is a charity, there will be no charge.

Earl D. Deveaux

Thanks. I just wanted to make an observation regarding how difficult it is to find information on the history of The Bahamas. And I hate to fall into a trap of appearing to be helpless. But it is incredible. I've read three books recently. A novel, *The Last Marlin*, which is a history of Marlin fishing in Bimini, a textbook called *The History of Florida*, and a piece called *A Swamp*, which is about the building of the Everglades, and how it drained the [natural] system in south Florida. I learned more about The Bahamas and the Seminole Indians and Andros from those three books, than I have in all my entire life. Now, if we are going to promote cultural tourism and we are going to evoke the connectivity between Florida and Andros with the Seminole Indians, it cannot be fair and right that it is not taught in our schools. And we shouldn't have to go to Harvard to learn about this either.

It is difficult to explain how challenging it is for a young entrepreneur seeking to develop a tour that is relevant, historically accurate and culturally well founded. For instance, let's say I want to do something about the Chamberlain Estates in Andros and the Seminole Indians because I want to promote my cultural history and tradition to entice tourism. As of now, you would need to invent historical information. You would be lying through your teeth. The information is very difficult to find and put together but that is the challenge we must confront in order to make this an entrepreneurial activity and realise the potential that exists.

It is also true in Barratterre. I've heard the story about Pompey's slave rebellion on the Rolle Plantation. If you study that event, you will discover many inaccuracies. I think it's a betrayal of trust when people are looking for their history and some schemer lies to them about what actually happened. So there's a need for historical accuracy, but it's very difficult to put this information together. I think one of the things that should come out of this discussion is to start doing what the great cities such as London have done, where you see some of the historical plaques on walls. They're accurate. They're researched. They also summarise historical events into a few paragraphs. We can do that but with a focus on what happened here, in Red Bay, or in Rolle Town. Once we better understand our history, we can have a sense of place and being that helps to build this tradition and make cultural entrepreneurs. I enjoyed the books, by the way.

[LAUGHTER]

Michael Pateman

May I add to that point though? There is a book on the Seminoles of Andros but it's a very academic book. And that's now where I start to blame my colleagues who've worked in this field before me and even myself. I've published in the academic world but I really have never put out a general publication for the public. So it's about how we get this knowledge that is in the world of academia out to the Bahamian people. There's lots of information about these sites. We have antiquities that need to be better disseminated to the public. In fact, we're working on a project right now that includes some aspects of Exuma, like the history of the Pompey Museum, which most Bahamians know burned down, but know little more. This project examines aspects of Bahamian slavery providing a real sort of look at slavery and emancipation from a historical perspective.

But part of why we're doing such detailed, historical research is so that we won't have to depend on the information that Gail Saunders put out in the 1980s or that other academics have put out. It's going to be geared more for high schools, primary schools, tour guides, all Bahamians, everybody. The challenge is making sure you have the authentic historical information. Some tour guides, for instance, believe, that people just want to hear a good story. But, that is not the case. People want to hear the truth. We could look on New Providence, at Blackbeard's Tower, which was never occupied by Blackbeard. It's a name that was created by tourism in the 1950s and it's created a life of its own. So it's this type of thing that we have to fight against. [OVERLAPPING VOICES]

Eric Carey

OK. We have one more question.

Woman

This one is for you, Michael, regarding the UNESCO [the United Nations Educational, Scientific and Cultural Organisation] conventions that we have not signed. What is the disadvantage? There must be some disadvantages as to why we have not signed on to the four most important ones, right? Because if we signed those conventions, wouldn't that assist us in the marketing of our culture? There are the tangible and the intangible and because we're such an oral society, we are able to tie them all together. We have so many sites throughout The Bahamas that we can just mark it ourselves, through UNESCO, for the sake of the cultural heritage of our country. So what are the disadvantages and who is the driving agency that has the ability to convince our politicians, to get our chairman to sign on to these conventions?

Michael Pateman

Well, the disadvantages are—honestly I have not found any yet. In

the past, it was a lack of education. Sadly, I blame this reason again. We haven't done a good enough job educating the politicians, at least in my opinion, stemming from the feedback I've received. So the World Heritage Convention is something that Antiquities [Monuments and Museums Corporation] is pushing for. The Tangible-Intangible Cultural Heritage Convention should be something that the Ministry of Culture pushes. I believe, The Bahamas already pays our UNESCO dues and the financial commitment comes out of that. However, it needs to be clarified as to where the UNESCO programme fits into Bahamian decision making processes. There is confusion about responsibilities and roles. The Underwater Heritage Convention is the one in which there are some issues with signing. That one places limits on the country with really strong stipulations on what can and cannot be done. As for the rest, I've not seen any disadvantages.

Woman

Are the other officials as educated as you? [LAUGHTER]

Michael Pateman

We're working on it. I believe we're close to signing the World Heritage Convention. I cannot speak to the other ones though. Sorry.

Diane Davis

I've done a little work on the UNESCO heritage sites in Mexico and I don't know if it's for sure the same thing here, but one of the downsides is that it will bring us back to the discussion about economic development. When you work with UNESCO, they're very restrictive about what can be done on properties and lands. So it could very well be that they kind of fear losing the capacity to sell land to private developers. That is likely what's getting in the way of signing UNESCO Heritage here.

Man

This should be the last comment. Thank you, Michael.

Michael Pateman

Well, to add to that. If a country does sign the World Heritage Convention, it's when you nominate the site that they begin to put the restrictions on the country. There are limitations on what you should do to a World Heritage site. We are talking about cultural heritage and heritage tourism so once you nominate the site, why would you want to develop it? People are coming to see that site as a heritage site --

Diane Davis

But we are talking about politics. It's not why you and I want to develop it. Why won't the government sign on? The answer is because the government is looking at these sites as resources. [OVERLAPPING VOICES]

we have discussed. The Facebook page is going to remain active as an opportunity to present your thoughts. Those of you that didn't, who weren't able to crystallise your questions, send them to us via the Facebook page and we'll make sure that they get attended to. Thank you all so very much. For me and Eleanor, my partner in crime, not crime, we're not criminals, but Eleanor and I have run a parallel course through the public service and in the environmental arena and in the NGO sector. We have always looked to make sure that opportunities like this present themselves for Bahamians to get involved in the process. It gives us good guidance for what happens to our country 200 years from now. So thank you all very much.

I'd like to remind you all that a very important conference is taking place. This is my brainchild so you'll have to be here. We have the first Bahamas National Natural History Conference, which is taking place here at the College of The Bahamas from the 5th to the 8th of March. That's just a couple of weeks. We have had phenomenal responses, and over 100 abstracts. We're going to have a roundtable in landscape ecology that Gareth has promised he's coming back for, so perhaps you should ask the dean for permission to come? I just wanted to put it out there. [LAUGHTER] And all of you, all of you should come because it's going to be incredible. I'd love to have people like Dwayne Curtis, [Assistant Director, Department of Health Services] who's been one of our lead scientists in the country to come and listen and give these people advice and guidance about the type of research that we want. So from March 5th through the 8th we are going to have parallel sessions because we have so many. Some are going to be held here. Some are going to be held at the Performing Arts Centre. In addition to those 100 abstracts, we also have about eighty talks, about fifteen posters and about seven or eight incredible films. So please come back. Right now we have a reception over at Choices Restaurant and all are welcome to come and join us.

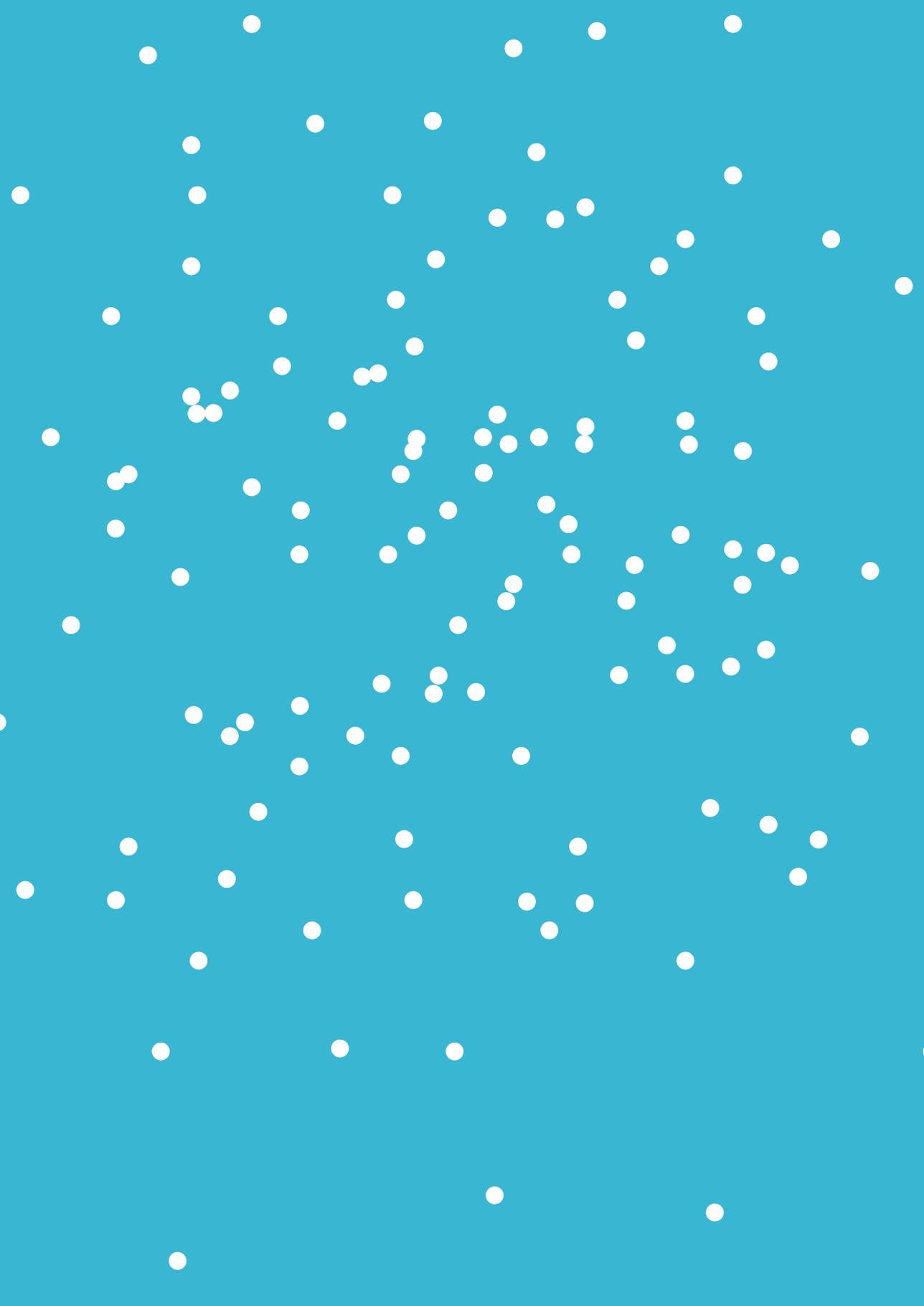
Oh, oh, sorry. We would actually like it if Rochelle [Newbold] came. Stand up here. Come. Come, come. So, the process is being driven by Rochelle and she is a very qualified, competent, dedicated Bahamian and she has been, I'm not going to repeat this ever again, [LAUGHTER] but she is important to everybody involved in this process—the donors, the dean, everybody that pushed this to be led by Bahamians and facilitated by Harvard.

All of you will get to know Rochelle Newbold very well because she's going to be involved in this process for the next couple of years and she wants me to tell you to please leave on your name tags because we are recycling them for future events. Thank you and let's go to the reception. [APPLAUSE]



ic Forum
bruary 2013

East African University of
Manufacturing and Technology of The Bahamas
Commonwealth Trust
University
of Technology





III

Underwater







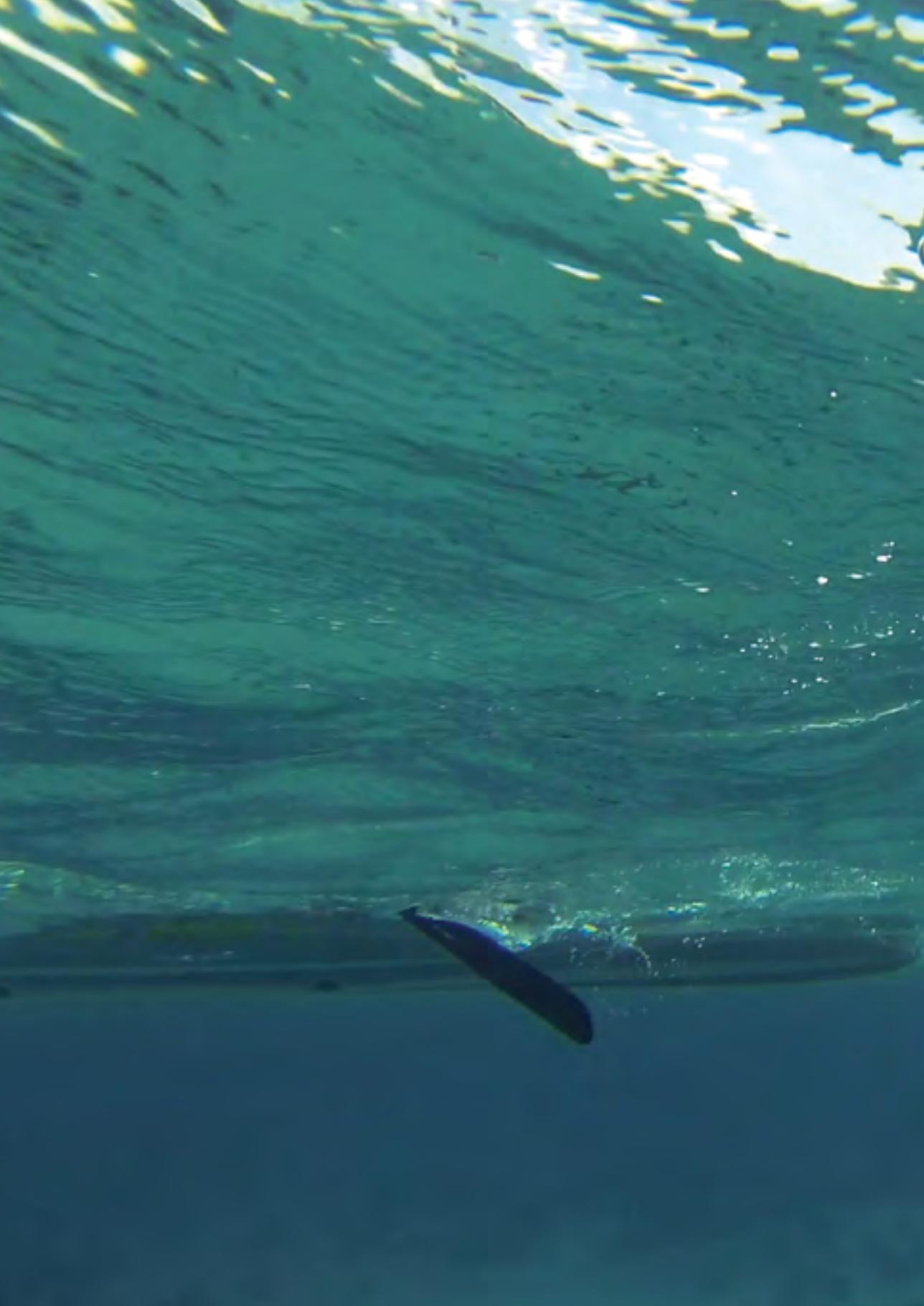






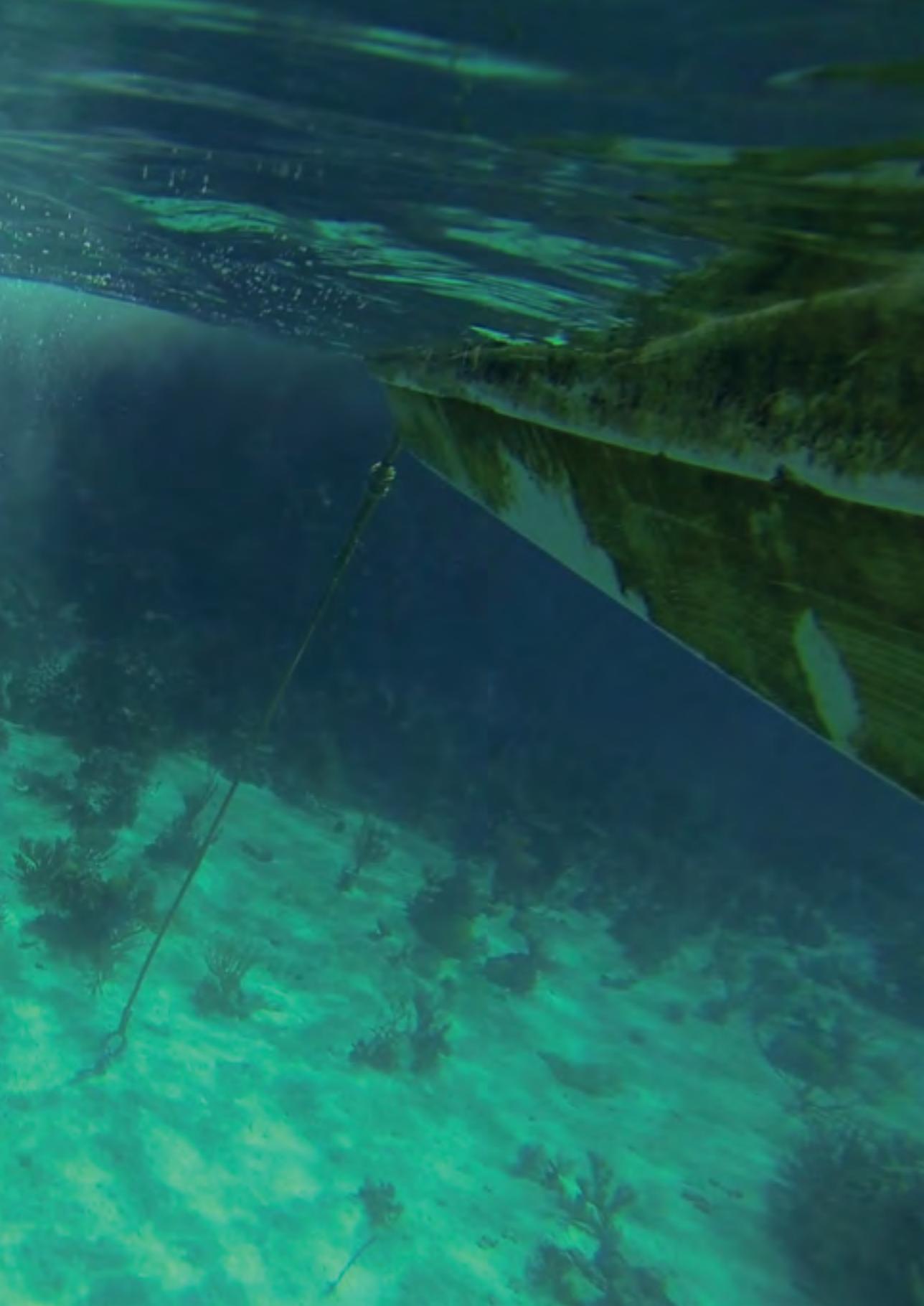


















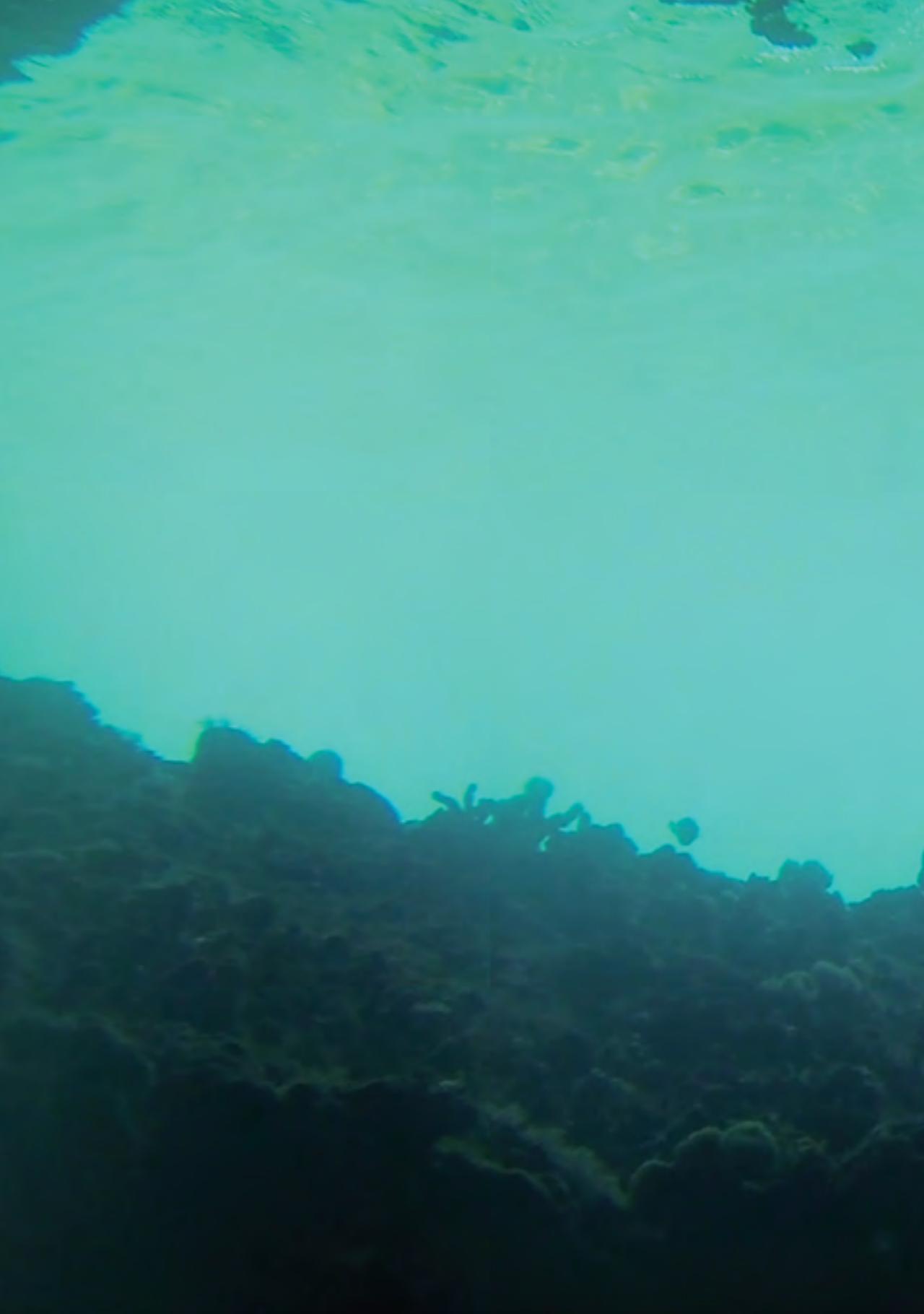




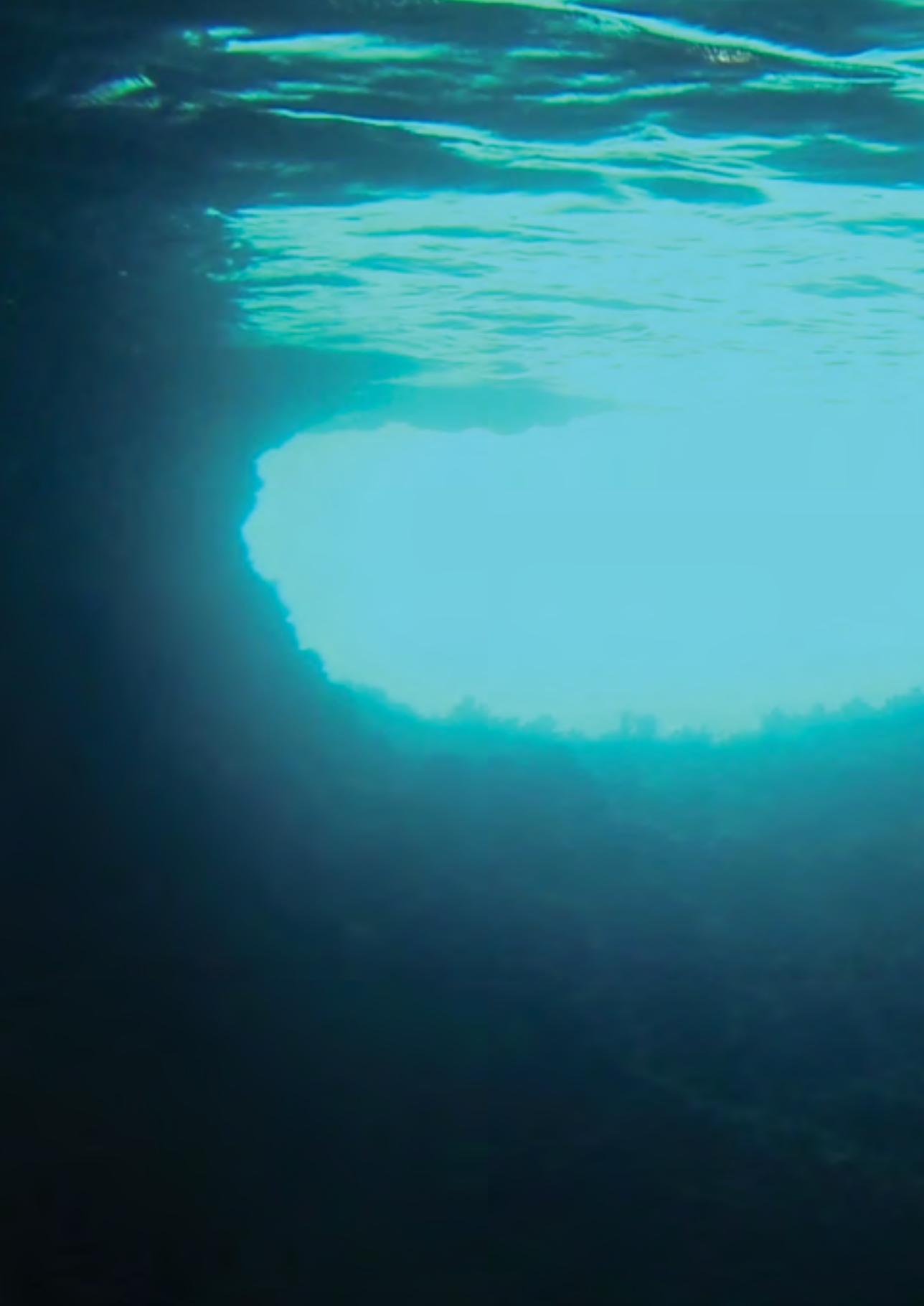


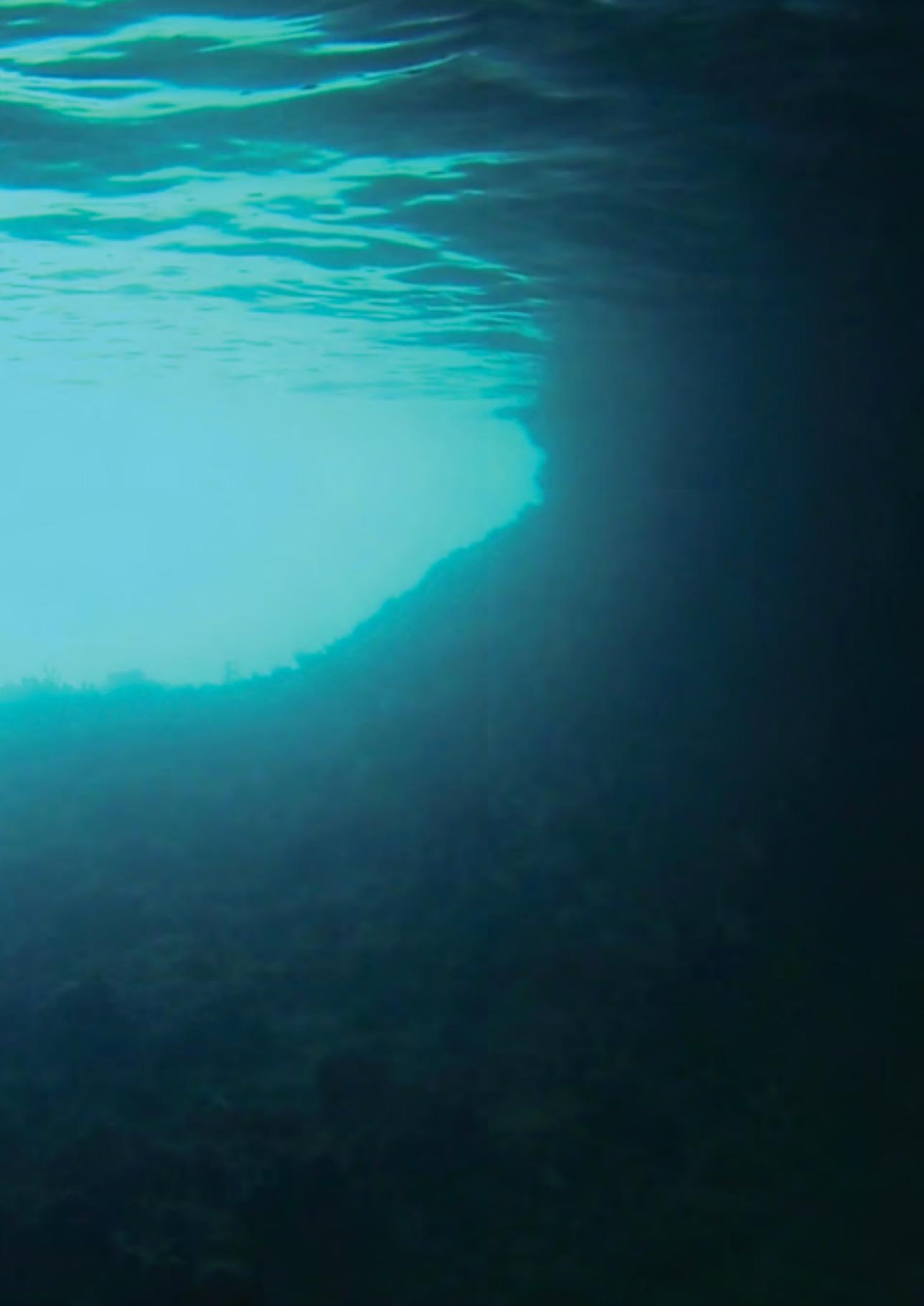


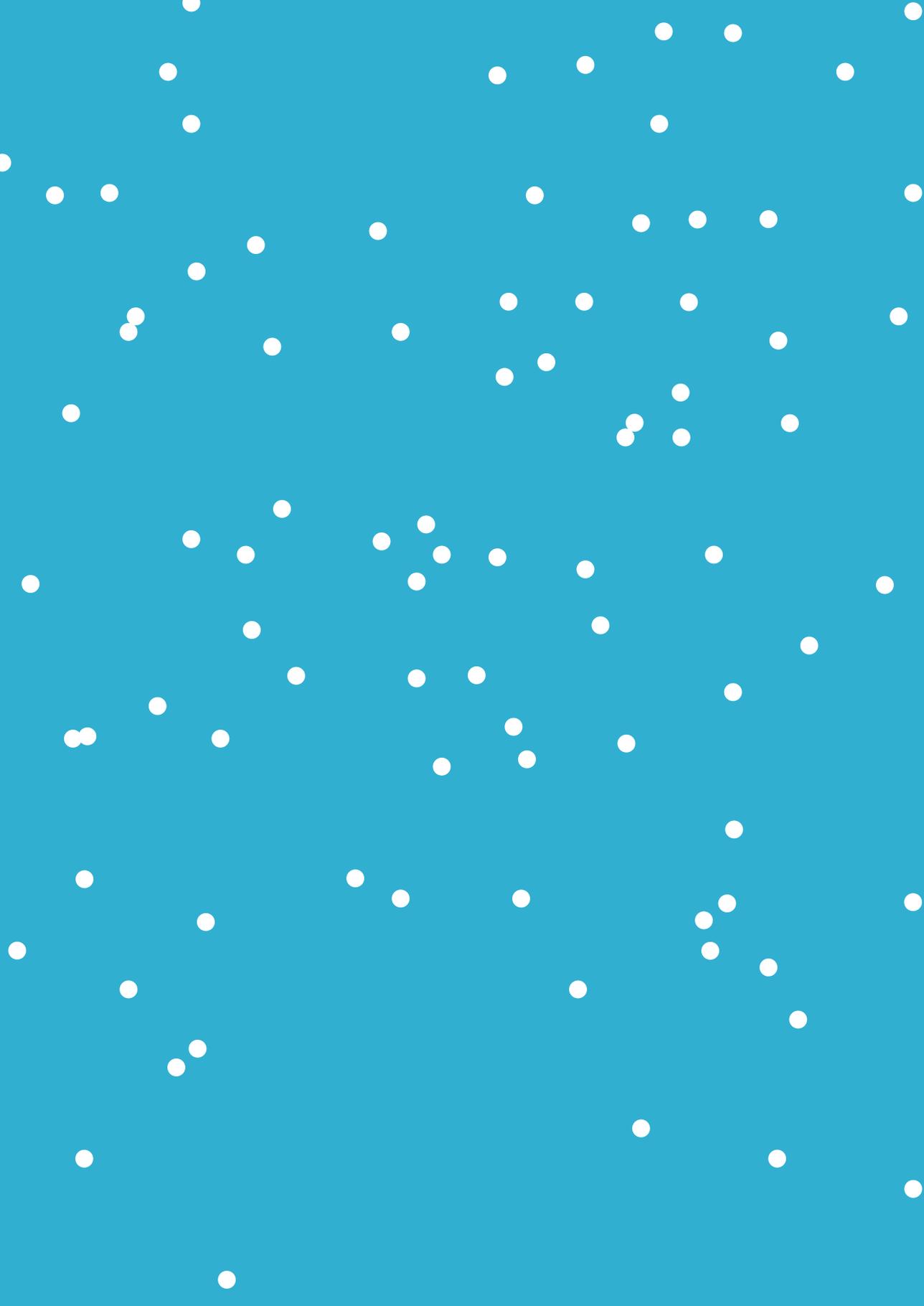














*It is very, very expensive to move
between the islands.*

We would like a doctor on the island. Currently, a doctor only comes every month, not every Monday, and it is not predictable. The dentist comes maybe once a year. If we need something important, we go to Nassau and that costs big money.

IV

Fieldwork

- ¹ Design Anthropology**
- ² Field Research and
Index Cards**



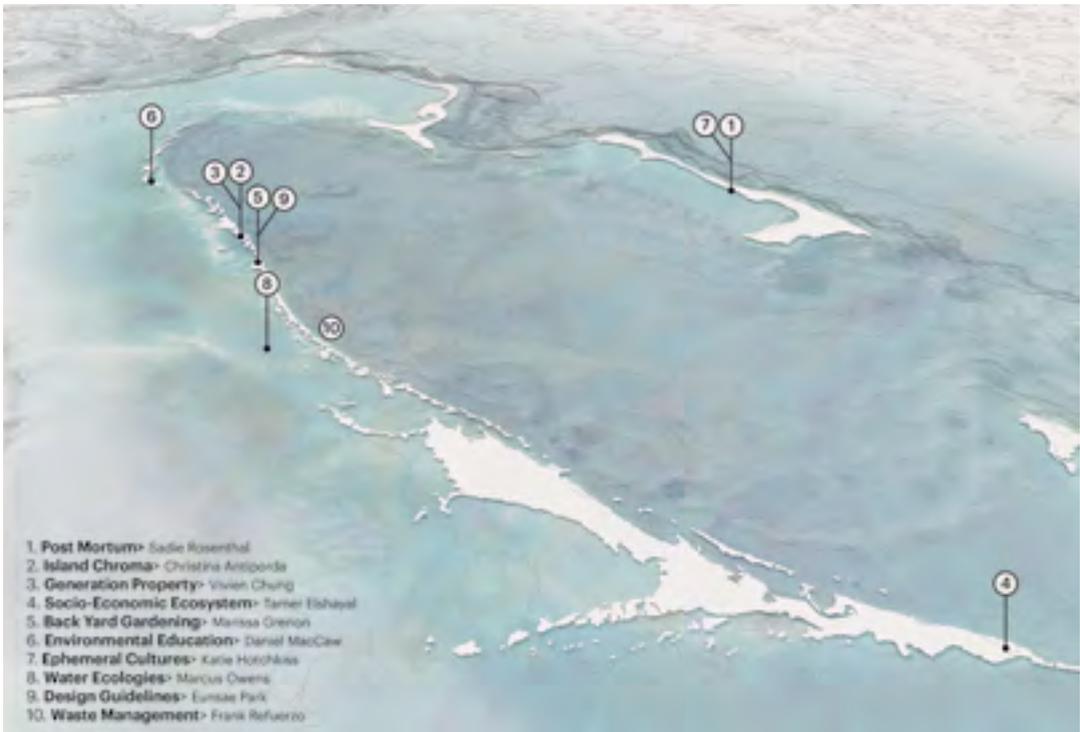
COURSE DESCRIPTION

In recent years, there has been a movement in anthropology toward a focus on objects, while design and planning have been moving toward the understanding of objects as part of a greater social, political, and cultural milieu. This seminar explores their common ethnographic ground. The course is about both the anthropology of design, and the design of anthropology.

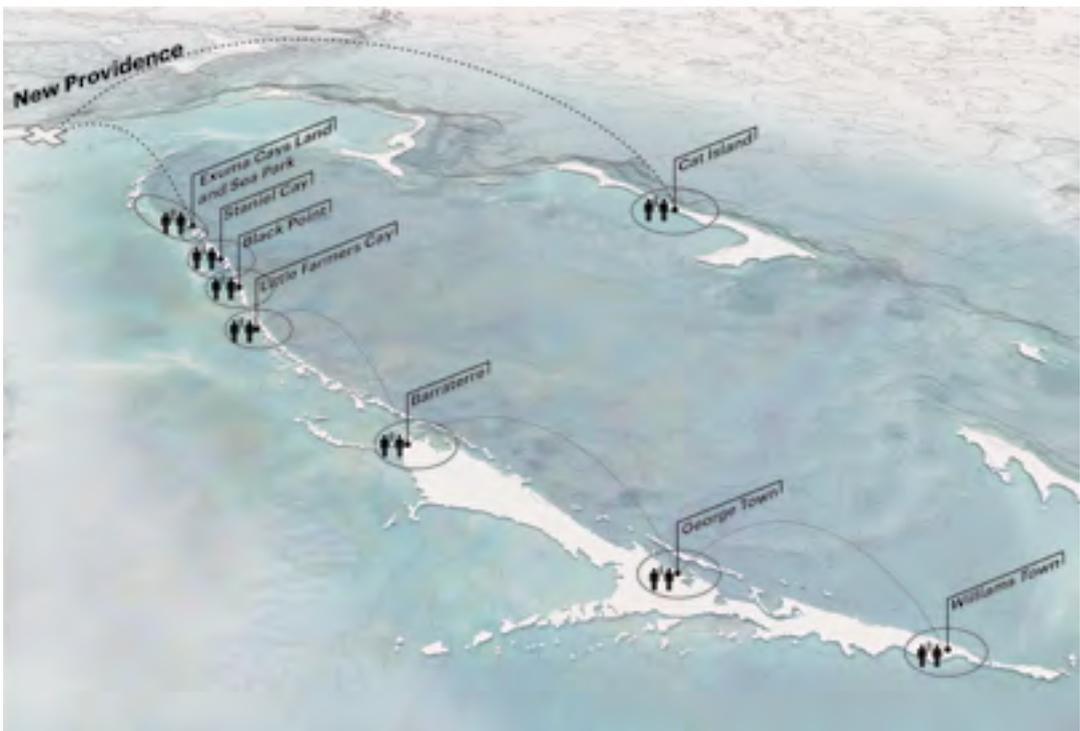
For designers, the goals will be to learn thick ethnographic observation and description; applying theoretical concepts in making connections between ethnographic data; and moving from ethnography to an understanding of how context informs design, as well as asking why we design in the ways that we do. Anthropologists will be challenged to think about different forms of ethnographic fieldwork by collaborating with non-anthropologists and working toward a collective ethnography; using visual information to represent ethnographic information and insights; and applying anthropological skills to the study of objects, materiality, and design processes.

The seminars will be filled with different components and tasks, including lectures and synopses of the weekly topic, small fieldwork-based exercises, learning how to take notes or record data using different media, analyzing ethnographic data, sharing thinking on individual projects, and discussing assigned readings.

Where possible, the synergy between anthropologists and designers will be cultivated to maximise exchange between disciplines. Ideally, the class will be evenly split between FAS and GSD. Students will be expected to engage in two large projects over the course of the semester. The first is a seven to ten-day fieldwork project in The Bahamas, centered on the Exuma archipelago, to be carried out over Spring Recess (March 16–24) with pairs of anthropologists and designers carrying out an ethnography of specific islands. The class periods leading up to that fieldwork will prepare students—methodologically, ethnographically, and theoretically—for this exercise. After the Spring Recess students will analyse their findings in relation to certain conceptual themes that drive much of design anthropology but also bear on the specific nature of design problems in the Exumas. This will prepare students to complete the second large project of the course: a design proposal capturing their thinking on design anthropology and their fieldwork in the Exuma.



Fieldwork: Map of Proposals



Fieldwork: Map of Trips

ON GRAVEYARDS, FUNERALS AND DEATH

Sadie Rosenthal/Cat Island

The Bonamy Town Graveyard is on an uphill slope enclosed by walls and sits on a large, flat stretch of land, right next to the Baptist Zion Church. Its outer wall faces the ocean on the far side while the churchyard sits to the east, on the left side of the road. A tree grove lines the western wall. Reverend Manuel told me, in a later conversation, that these rock-piled walls are called “slave walls” because the slaves built them. He also said that graveyards were often chosen near the ocean, as that setting provided the most beautiful view. This is definitely the case for this graveyard, which sits atop a sheer drop into several meters of the deep yet clear, turquoise ocean of Exuma Sound.

The graves are overgrown, but they seem better groomed than those at the New Bight Graveyard. There are also some prominent and rather noticeable tombs. At first glance these structures look like they are made from cement, but Reverend Manuel explained that they are actually made of a simple sand and limestone mixture. All of the graves seem to be parallel, despite the outward look of being scarcely strewn throughout the plot of land. Most graves face diagonally (end SE, head NW). The reason for this is because the graves often follow the land’s surface. I later discovered that not many graveyards are left because the places where people used to dig (near the ocean) are now waterbeds.

In the graveyards, if you have a cement slab, it usually means that the person, or their family is more well to do. The reverend informed me that Andrew Deveaux donated the graveyard, along



with the neighbouring church and school, in the nineteenth century. Apparently Deveaux, a former plantation owner, saw the inhabitants of the island praying to Jesus in the trees and decided to donate two denominations of churches to them.

Entering the reverend's parlour was like entering a hall of memories. His walls were coated with the photos of people living and dead, as well as diplomas, certificates, newspaper articles and more photographs. I was curious to hear a first hand account of how people remember those who had passed. It was remarkable to me that such intimate memorials, like those in the memory hall, seemed rather rare on the island. Reverend Manuel looked a bit sad for a minute and then explained, "Most forget. Some might have left Cat Island for a long time. Some do return and see things that bring back nostalgic memories. Typically, however, they will have a service followed with a feast for a deceased parent or relative, or a memorial on the anniversary of their death. But then that's it. If a person's father drowned or a house burned, or a plane crashed, people will remember it. But eventually, they forget," he trailed off. "They have a big mourning, bury you and that's it."

Also, sometimes graves are ignored due to complicated family relations. Some might not recognise the deceased as a member of their family and say something like, "It's your father not mine." For instance, one time Reverend Manuel held a burial service for a man in Andros. When one of the dead man's sons arrived, he discovered that everything had been left to his brother. When the police came to clarify the will, the upset man stole a policeman's gun and shot his own brother dead, right in

the cemetery. At that point, the will was placed in the lawyer's hands to be read, and, as the reverend explained, "All the lawyers are mostly in Nassau."

I asked what happened to the descendants and the property of the deceased after their passing. The reverend explained that sometimes the parents might not own the property. The parents, in other words, are considered to be squatters. Even though their family might have lived on the property for several decades or even generations, they might not have any documentation to prove it's theirs. Also if the property belonged to a grandfather with many children and grandchildren, there would of course be a vast number of problems concerning the division of property.

When I asked again about the process of the funeral, Mr. Martinez described how after church there was a funeral procession down to the graveyard. In the past, the funeral procession came around on the beach because the graveyard was open on that side. It is now blocked off by foliage. A few men typically put the body in a dray and pulled it, although in regular daily affairs, a horse pulled the dray instead. Funerals avoided using horses because plenty of children generally participated in the procession and a horse could be frightening. People would weep and sing while they walked along.

Nowadays, the procession is much different. They just put the body in a car and everyone drives straight to the graveyard. Sometimes they leave a cup or glass on the grave because it was the last thing the person used, before he or she died. Some people kiss the dead before placing them in the ground. However, that is a foreign concept to Ruben, "Once they're dead, they're dead. As much as I loved my Momma, when she

died, there was no way in hell I was kissing her cold face.”

In the past, the dead were buried right away. In this climate, the bodies would decompose quickly. If a person died in the morning, he'd be buried in the afternoon, or at least by the next day. They might have been preserved with some tobacco leaves but this type of embalming wouldn't last long in this climate. This meant that a lot of people missed their relatives' funerals, especially if they were on another island. Isabel told me that presently people are buried in mausoleums, but in the past they would just dig a hole and put the deceased in a box. They rarely even marked the grave.

According to Isabel, graveyards are usually by the seaside because it is the only place on the island where the ground is soft enough. The problem is that this means that the graves sometimes get washed out during storms. I asked her why cremation wasn't a more popular way to dispose of the deceased body. Isabel thought that this had to do with the high price of transportation. There used to be an organization called Society Hall where people could chip in \$10 to \$20 so that when a person died, there would be money to buy wood for the box. “They don't do that anymore though,” she clarified. Julian said that the family has to do everything, including “Digging [and buying] the box—it is lots of hard work.” If you don't do it yourself, it can be quite expensive. With lifting the body to Nassau, bringing it back and all of the funeral home expenses, the average funeral can cost around \$6,000.

I asked Jake how they remembered the dead here. He said, “Honestly, there are plenty of graves that we can't even remember where they are.” Some people

are so poor that they couldn't even pay for a burial, so they just dug a hole in the sand with no markers. The coffin might pop up and need to be pushed back down after a storm, but no one remembers who is buried inside. Some people may put an obituary in the paper or on TV to memorialise the dead, but that is expensive too. In general, once a person is dead, they're forgotten.



ON DRINKING WATER, WELLS AND DESALINATION

Tamer Elshayal/Williams Town

Richard argued that water, more than land, is Little Exuma's biggest development challenge. He is satisfied with the way the local community was consulted about the location of the desalination plant. However, he believes the desalination plant in Williams Town is just a temporary solution, as the desalination filters are installed as transportable units. He thinks that the government has a plan to extend a fresh water line from George Town, which currently stops at Hartswell.

When I got back on the main road, two hitchhikers waved at me. I was alone the whole day and felt that I needed to make contact with someone. So I decided to stop and see if I could give them a lift. The man told me that the fresh water line, or as they put it, "city water," comes from George Town, but the line stops at the Ferry. He told me that every house has its own well and in his case, he had "to bleach the water and then boil it." Some people still collect rainwater and larger houses have their own desalination units. In the old days, the Bahamian government used to provide farmers and homeowners with dynamite to explode the hard crust of the bedrock in order to dig Spanish wells. The practice apparently caused a problem of salt-water intrusion into fresh water aquifers and consequently aquifers became more brackish.

After expressing his concerns about water quality issues in the Exumas, Richard went on to reference details on drinking wells. Wells cost \$1,000 for their construction, \$2,200 for the pump and the pressure room and \$50-60 per

month for electricity. He stressed that wells need to be dug diligently and carefully. It is important to not over drill and go too deep because then you risk running into the salt-water layers that can consequently get mixed with the brackish groundwater lenses. The drilling has to be executed by someone familiar with both the construction processes and the natural specifics of the locale, since the freshwater table is irregular. Richard then clarified that the sulphur content in brackish water is caused by the intrusion of the salt pond. The drier it gets, the more saline the brackish lenses of groundwater becomes. Richard also mentioned that climate change is obvious in the Exumas, stating, "We are in March and it's quite hot already."

Omar informed me that the desalination plant is supposed to work in a few weeks and that the pipe mains bringing city water to houses in Williams Town have already been laid. He said that every house has its own separate well, and that in his home, he uses water for all kitchen and bathroom uses. The well water is still brackish and causes rusting of fixtures.

As for drinking, many people buy five-gallon jars of Naturally Fresh bottled water. "We like Naturally Fresh and city water will not change our habit of buying water," explains Bob, the owner of Naturally Fresh. Bob started his water bottling business in 1995. At that time, there was only one other company in the Exumas, so he thought there was a demand he could supply in order to break the monopoly. At first, he initiated his company in Williams Town—his hometown, but since moved to George Town in 2000 to seek a more central place for his growing business. Naturally Fresh caters to clientele spread on both Great and Little Exuma. Bob mentioned

that he is considering exporting water to Nassau, however, transportation costs still need to be calculated in order to ensure the economic feasibility of this venture. Naturally Fresh is considered one of the best brands of bottled water in Exuma. Bob's water is slightly more expensive than other brands. He explains that they change the filters more frequently to ensure water quality and he is aware that this will have to affect his selling price.

Water quality is monitored by the Department of Environmental Health at the rate of one sample per month. According to Lucie, one of Bob's regular customers, "Naturally Fresh is one of the best in The Bahamas" and is always compliant to regulations. The brand can be found in supermarkets in bottles of different sizes—12oz., 20oz. and 1L—or as reusable plastic containers of 1 or 5 gallons. Bob delivers 5-gallon water containers at no additional cost as far as Williams Town. He also encourages his clients to reuse their containers as long as they are still functional. The blue Naturally Fresh label indicates that the "Quality Drinking Water" is purified by reverse osmosis and then ozonised. Bob clarifies that after passing by the reverse osmosis membranes, water gets ozonised to be disinfected. Afterwards, water is directed towards tanks where it gets distilled. This removes all resting salts and makes the water more flat. The container label also includes a standard table for nutrition facts, indicating zero values for calories, total fat, sodium, total carbohydrates and protein.

When I asked Bob about any perceived limits or problems with his business, he mentioned that filters are available in George Town, but they are quite expensive. Bob complained that more specialised spare parts require a

longer shipping time because there is only one carrier per week to Exuma. He then added that the duty tariff on machinery and spare parts is also a burden particularly for small businesses. Bob mentioned that all plastic containers are manufactured in and imported from Nassau, and that he might consider having his own plastic blowing facilities. However, these facilities would consume considerable amounts of electric energy.

MR. DERAPS

Pablo Barrera

The Hermitage Plantation is a large house with multiple rooms. The site is marked from the road by the tell tale blue and yellow Bahamas Heritage signs. However, the dirt road is unkempt, overgrown with grass and the site is in major disrepair. There are also houses nearby the site. At the plantation house, oats are tied to the building or to stakes nearby. Goat droppings are everywhere. There are also a couple of male goats that aggressively stalked me as I approached. They kept following me and in some cases blocked my way around.

I noticed that inside of the Hermitage Plantation house, the paint looked to be from about the 1970s due to the colour and the quality/texture (it was flaking and most likely lead based). I also noticed that some of the wood that braced the wooden structural bits seemed to be cut from newer lumber. This indicated repairs or some sort of preservation. Furthermore, the bathtub and the refrigerator were rusted and collapsed, making me wonder if the house was either occupied or if people had squatted in there for a time before it became heritage property.

When speaking about heritage with Mr. DeRaps, he remarked that the Hermitage site is badly kept. He said that it ought to be repaired, maintained and that perhaps a museum should be built onsite. He compared it to Long Island, saying they had a small museum there that was very nice. He noted that Long Island has a smaller population than Exuma I asked if he was from Long Island, and he said that most of the families were.

It seems that his main concern was

about the young people living on the island who did not know about the Hermitage or about the complete history of Williams Town. Restoring the building is certainly an option, with tourism as the main impetus, but he again mentioned the idea of a museum. He also lamented about the community centre and floated the idea of turning the plantation into the new community centre with a museum built beside it. He said that while Santana's is certainly a draw for tourists, what the town really needs is a space they can call their own that is not just for tourists.

When I asked what the connection was to these ruins, since they were clearly not affiliated with Long Island, he stated that Williams Town is now their town, so it is important to them because it is part of their history. He sees these sites as unique to Williams Town and the community now there as tied to the land. It was apparent that history and historical knowledge was of great importance to him. He mentioned Guy Fawkes Day, as well as how the Salt Pond is still in use. He thinks the pond can become an industry if designed and managed properly, and he thinks it is important to know more about the ruins, due to the past ties to slavery.

My curiosity was sparked about this retroactive reclamation of heritage. It is an interesting tactic for constructing a narrative for the town's inhabitants. The purpose of this is not yet entirely clear, but I would venture to say it has to do with identity formation and displacement in the face of older towns nearby with direct lineage ties, such as Chase or Rolle Town. This tactic of co-opting and re-appropriation is very fascinating and merits further study.

It turns out that Williams Town does not operate as most heritage properties.



It was purchased by John Vincent Lee, who ended up owning most of the island of Little Exuma. He brought in people from Long Island for sharecropping and labour. According to Mr. DeRaps, the area of the villa we are renting used to have over 200 head of cattle, and the main crop was onions and sea grapes. Sheep and goats were also herded. All of this was traded with Great Exuma and Nassau.

John Vincent Lee also had a factory built in which part of it was used to gin cotton. Again, the myth of a past history was shaken by the fact that cotton was still being produced up to the early twentieth century. Apparently, the buildings of the factory are still there. Eventually the family went to Canada, but Mr. Lee's wife lived in Nassau for a while in a second home and Lee's son, a doctor, was the owner of the family properties that have not yet been sold to locals or

developers. A man named Gordon, who acted as an enabler and who was working out of Florida, managed the sale of land. According to Mr. DeRaps, either Mr. Lee's or Mr. Gordon's older daughter lives in Nassau.

The awareness of George Town as a developing area was not a sudden revelation. Williams Town and the rest of Little Exuma connected to George Town by pontoon boat. John Vincent Lee sent sheep to Nassau via sailboat by way of George Town. This marked the expansion of his route from the original sailboat that came from Long Island. I wondered aloud how he knew so much of these details, and I was stunned to hear that Mr. DeRaps used to work for Mr. Lee himself.

I was under the impression that the island was purchased by the Lee family in the very early part of the 1900s at the latest, but came to discover that it was more recent than that. Sharecropping

developed the town population rapidly in the 1940s. Farmers gave 16% and the herdsman collected the fee. Mr. DeRaps owned about 140 cows, 30 sheep and he had a lot of goats. The onions that were a popular crop were exported to Nassau to make money for the farmers, and the entire management of money was handled by the Farmers Association Union.

I wondered what had caused the Lees to leave an entire island behind, figuring that part of it had to do with the agricultural situation. Mr. DeRaps ceded that as the climate changed and the groundwater became saltier, planting became more difficult. Now they only have two seasons—summer and winter. Things bloom very quickly in the spring, but then it gets hot. This posed problems for planting schedules. However, he posited that it also had to do with what he referred to as the “false economy” or the drug trade a little before that. The situation was so bad that the United States was invited in to build a base in Williams Town to help clear the drug situation. He said that for a while most people worked at the Four Seasons and that for a time there was talk of developing land in Williams Town for a hotel, but the deal fell through. Since the Lee family owns much of the land, they have to be consulted, and getting everyone in one place at one time poses some difficulty. However, Mr. DeRaps thinks development is key to bringing people back from George Town.

Mr. DeRaps began by explaining that there is a lot of land, and seeing as most people would prefer development, that it is entirely feasible to develop Williams Town to the level of George Town. I then wondered aloud who in the local community would like to see the island more connected to Great Exuma,

as opposed to becoming independent through development? At this point, an interesting fact was revealed: Williams Town was a significantly bigger town in the past, with the population peaking in the 1940s and 1950s. After the bridge was constructed, the population dwindled as everyone moved to Great Exuma in the late 1960s and early 1970s (most likely seeking employment at the resort).

I was impressed with DeRaps’s ideas for generating tourism, but he also had some good ideas for generating revenue outside of that industry. He mentioned harvesting for the Salt Pond as a major endeavour. He was not talking about Santana’s small scale salt harvesting, but rather salt harvesting on a large scale. He argued that if one were to make a road on the south side of the island, they could access the other areas of the Salt Pond and establish gates like before, for the control of water flow. He mentioned that salt could be used for preserving as well as cooking, given the amount of imported fish and other goods. He envisioned a wide-scale, Bahamas industry of salt harvesting as an export to their other islands and even other countries. Other ideas included harvesting sea sponge to give the fish a break. All of these ideas are worthy of exploring, provided that proper policies are in place to ensure sustainable development.

Another idea Mr. DeRaps discussed was the potential business of real estate. He elaborated on the particulars of generational land ownership, explaining that on Long Island, one has to pay a fee as membership. This money entitles them to farm the land but not to sell it. He said that for this reason the Exumas is more developed than Long Island. It appears that while some consider this

process a barrier, Mr. DeRaps was of the opinion that it was a good thing because it kept processes out of the hands of the government. I again saw concern about the government controlling development.

Mr. DeRaps remarked that he considers the people in Williams Town as close friends and in some cases as brothers, so he trusts them to consider the whole community as they manage their properties. He told me a little about his time as a Justice of the Peace, hence his title of Esquire. It was more of a volunteer basis, but he had the chance to work with lawyers as settlements were established in George Town. Further making a case for generational properties, Mr. DeRaps described how it operated almost as a form of conservation in Long Island. Long Island's museum boasts the heritage and history that draws visitors as well as the caves that attract tourists. Since the land could not be developed without community consent, they are successfully managing these assets as opposed to focusing on building resorts. This venture is an alternative that would not have surfaced had outside interests, bent on making resorts and hotels, had control of the processes.

Mr. DeRaps does not seek a repeat of Long Island, but would rather see them borrow the good ideas all the while striving to do something different so as to promote the unique character of the town. He would like to see development first take stock with the situation on the ground and keep the people at the centre of any plans. Considering the welfare of the individual residents he suggested promoting venues for arts and crafts for those that do not have access to higher education. The idea of a salt harvesting factory was brought up again, as well as

Turtle Pond for the careful harvesting of turtle shell products. He also remarked on the usefulness of conch shells for souvenirs, but cautioned that just a few of the kids should go fishing because fishing is not as good now, and as well as being expensive, should be structured with ecological preservation in mind. Again, he warned not to put everything in the government's hands, as they are not familiar with the circumstances of the local people.

NOTES FROM EXUMA CAYS LAND AND SEA PARK

Marcus Owens

In Transit

Boarding the boat with S, I mentioned that we went to church and didn't see him. So we asked him if he ever went to church. He said that he did sometimes, but the visiting Evangelicals were driving people away, "They say they put a bad boat on the boys that don't come to church, they say they gonna go out fishing and not come back. The church is supposed to be about love, not driving people away."

Daniel asked S to swing by "the Majors," a popular mooring spot for yachts and the site of the swimming feral pigs. It was early in the morning and no pigs were in sight, but after drifting for a moment, a single, full size, speckled pig emerged from the brush and proceeded to swim towards us. I was surprised at its size, and after a moment of it lapping at the side of our boat, we turned around and powered our way towards Warderick Wells. Before the speed picked up and the motor blared out conversation, I asked S where the pigs came from, and if people ate them. "They put them out here. They pets man, we don't eat them," he said.

Warderick Wells

Disembarking at the Visitor's Centre at Warderick Wells, we found the deck to be crowded with middle-aged couples. We passed them and went in to see J, who seemed extremely busy and informed us that someone died there yesterday. We got the hint and retreated to the deck and mingled with the people gathered

there. They were friendly and we soon discovered that they largely hailed from the American Midwest, particularly Minnesota, and that they were on a group scuba diving tour. They seemed to be mostly first timers, except for one couple who came five years earlier "and hadn't noticed many changes."

We briefly explained what we were doing there, mostly mentioning the term "sustainable development," which seemed to trigger a flag for people. The divers seemed sympathetic to the needs of the local population. Baha Mar came up in conversation, and I mentioned that it was built with Chinese labour, which they immediately identified as "bad." We talked about the marine life that they would encounter underwater and the divers enthusiastically exclaimed that they would "like to see sharks." A young, Mississippian man with a southern accent, in his late 20s to early 30s, named Drew captained the group. We only connected with Drew once their boat showed up and they headed out, but we were able to glean from him that he worked two weeks on and four weeks off in Miami, where he worked on Charter boats. He seemed content with this life, and stated, "I work on other people's vacations." The captains rotate, while the guides on the trip work six weeks on and two weeks off. They also seemed to be foreigners. Drew had been doing this for six years, but explained, "most people use it as opportunity to travel for a year or two."

Once the divers departed, we began chatting with four cruisers, a Canadian couple with Gaelic accents, and an American couple. They were discussing navigation, the time it takes the Gulf Stream to cross the Atlantic and southern destinations. Once we introduced ourselves and explained our project as



having to do with “sustainable development,” we found that like many of the other cruisers we encountered, they were interested and quick to offer advice and opinions that were often at odds with locals. The Canadian couple was insistent that trash was a problem, and complained that locals littered and were unappreciative of their surroundings. The Canadian woman described taking it upon herself to gather litter at times. She also described an encounter with a young child who solicited her to dispose of her trash for a fee. She said she scolded the child, “I’m not going to pay you to take my trash. I know what you’re going to do with it.” She was insinuating that the locals simply dump their trash on the beaches. On the whole, however, they were also sympathetic to the poverty that exists and the need for some type of development. In this context they emphasised that they would come ashore and buy things when/if there was the opportunity. When we brought up the subject of fishing and poaching, they said that they enjoyed looking at the fish, but not fishing, as they eat spam. “Most cruisers don’t fish,” they said. (The warden later contradicted this statement).



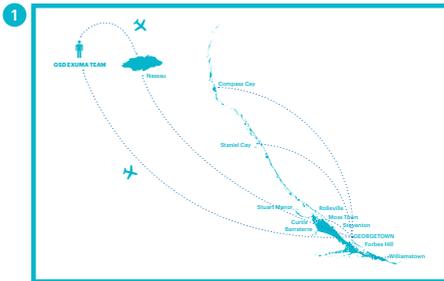
Field Research and Index Cards

Over 260,000 words were written during the initial months of fieldwork, together with over 2,000 photographs, examples of which are presented in the previous pages. The distinctive fieldwork methodology, which is being developed by the Exuma project and is diagrammed in the following pages, relies on collaborative engagement where the observations of individuals are part of a collective work. This way, we can reach more Exumians and better understand the nuances of life in Exuma. Encounters between researchers and residents offer great insights into local traditions, current practices, and future aspirations. These encounters are systematically recorded on index cards and work together as a collective, dynamic, and interactive system for documenting, communicating, and discovering relevant topics for the sustainable future of Exuma.

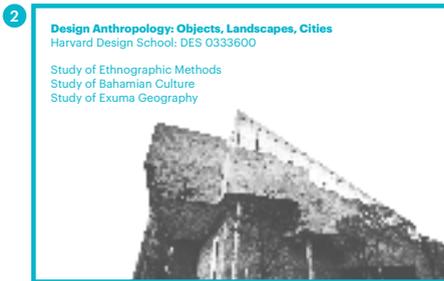
EXUMA Fieldwork Methodology

PREPARATION

PHASE ① PREPARATION—TRAINING



Site Selection: Exploratory Travel 12—2012



Training: Ethnographic Research Methods 02/03—2013

COLLECTION (SINGLE AUTHOR)

PHASE ② COLLECTION—DOCUMENTATION



Travel: Design-Anthropology Student Travel 03—2013

	Contact: Observation Interviews Daily Life Participation
	Documentation Tools: Recorders Cameras iPads
	Products: Videos, Photos, Notes, Sketches Scratch Notes

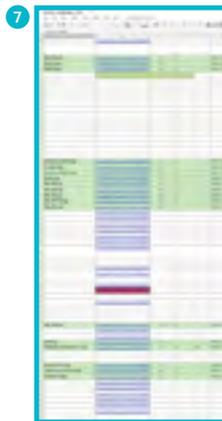
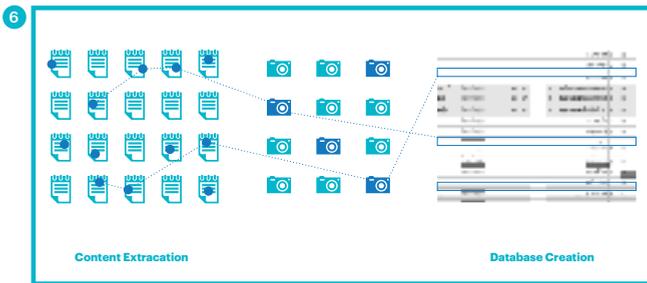
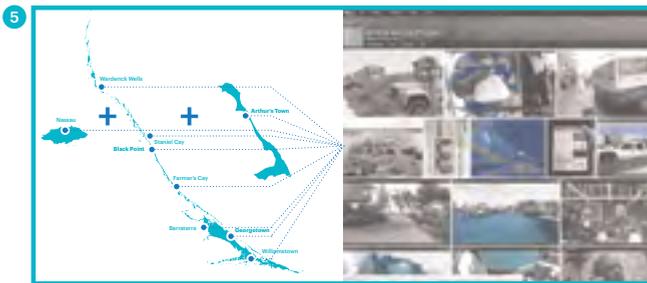


Elaborate

FORMATING (MULTIPLE AUTHORS)

PHASE ③ EXTRACTION—SELECTION

PHASE ④ INDEXING—TAGGING



Database Indexing and Tagging: Raul Bunschoten's "operative field"



Essay: Using video editing software

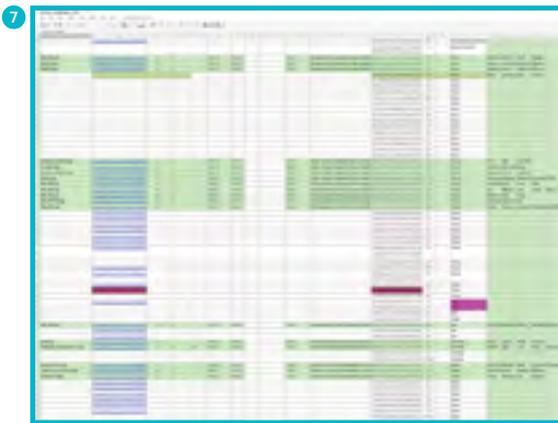


Essay: Photo Sequences



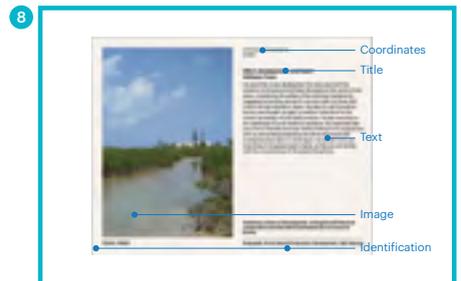
and Narratives: Edited / Selected Fieldnotes

PHASE ④ INDEXING—TAGGING



Database Indexing and Tagging:
Raoul Bunschoten's "operative field", identify certain fields

PHASE ⑤ FORMATING—PROCESSING



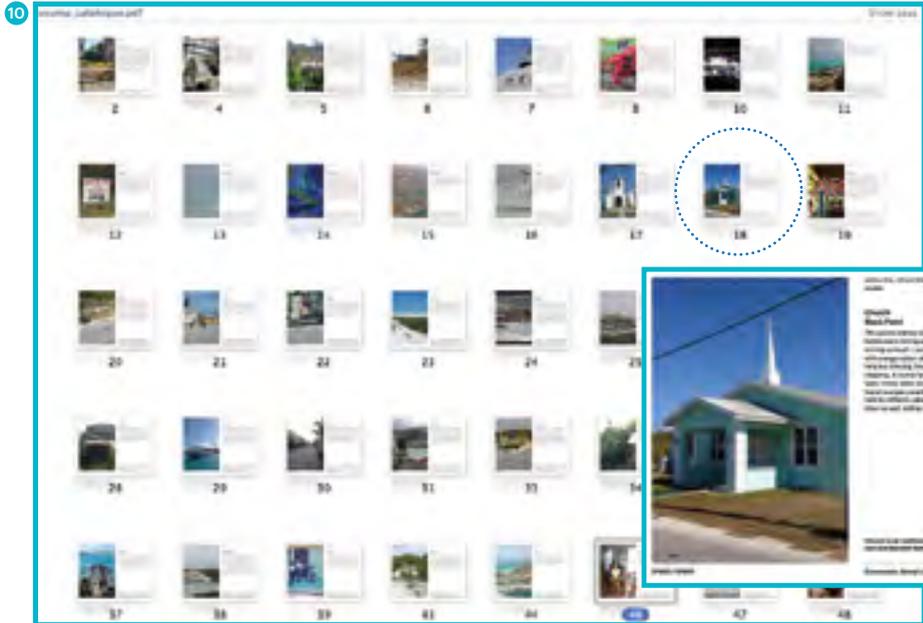
Index Card Template: Preliminary information index cards are designed
03/03—2013



Processing: Production Index Card Automation in Processing Software

PRODUCTION

PHASE 6 APPLICATION—PRODUCT



Index Card Generator: Printed card catalogue production
The index cards are the product of database selections, tagging, and indexing

FEEDBACK

PHASE 7 ONLINE



Online 1
1. Showing
08/09—



CA006 / MO008

29°23'36.46"N / 79°37'41.79"W
05.2013

Mobility and the Limits of Infrastructure Exumas Cay&Sea Park

Before T left, I overhear B and he discussing the logistics of fueling the boats for upcoming trips, mentioning that some people came by asking for gas/diesel. I ask B if that's how things are done around here, and he says not really. People may ask for gas in order to get where they're going but he doesn't sell, guarding "his" reserves "like gold". Interestingly, he says the an increase in megayachts, combined with elevated gas prices, has resulted in boats leaving from Nassau and Miami not being able to make it to BVI or points south due to fuel costs. The fuel infrastructure in Exumas does not have capacity, which results in shortages. I said that sounded like a market niche, and he said Bell Island thought so as well, and applied for commercial permitting, though mostly to increase the amount of fuel they are legally allowed to store. He doubts they will ever have much on hand to sell to people. "they are always out", burning 90K gallons a month, while they burn 80 a year.

Contemporary methods of mobility are linked with imported petroleum, which brings it own set of limitations and parameters.

Fuel, Yachts & Megayachts, Private Islands, Mobility



JC003 / PB004

29°39'40.96"N / 79°37'31.50"W
05.2013

The overbearing mother(country) Williams Town

I summarized what I had discussed but something good happened when I voiced my confusion about the issues of hangings and jail sentences following English customs. At this point Terrence smiled and made some crucial clarifications. Capital punishment still runs through parliament in England. Bahamians have special rights for visas due to still being subjects of the crown. I began to wonder what responsibilities does the UK still have towards the Bahamas. It was fascinating to think that something like capital punishment needs to first be run by Parliament in a country so far away. I asked if there are other lingering ties to the UK other than Guy Fawkes, and he said of course. He revealed that the Queen is still the head of state and that the Bahamians are still considered subjects. The Bahamas is certainly independent and has their own constitution, but it is not the same kind of independence as the USA.

Achieving independence only in 1973, the legacy of european colonialism has left an indelible mark on the Bahamas.

Colonialism, UK, Queen, Us, Loyalists



TE002 / V0001

24°12'00.82"N / 76°26'43.50"W
03.2013

The Commons and Community Stanief Cay

He also indicated anxiety about the transforming sociality on the island. It used to be that the people buying property would have a "good, cordial relationship" with the community, which he said made the island an "attractive place." He compared the cay to other places such as the Caribbean where there are "tensions" between black and white, economic disparity. He said that Stanief Cay is a place in which the community feels good about itself and what it's doing. It has "pride and confidence." He followed up though that beach access is becoming a problem as more property is being sold, and they are trying to figure things out to ensure some beach access. They are trying to convince private homeowners that it is in their interest to do so.

The issue of beach access becomes pivotal, negotiated between contested notions of land tenure and development, tourism and fishing.

Beach Access, Social Relations, Land Tenure, Self-Esteem



TE003 / PB003

23°29'43.86"N / 76°23'37.60"W
03.2013

Religious Plurality and Social Organization Williams Town

Mary Magdalene's is affiliated with St. Hughes, and the hardout we were given that day in church was the exact same one in Georgetown. In fact, the main priest comes from Georgetown. Jose would confirm this that evening. Originally all the churches were Roman Catholic, and then for a time it used to be primarily just Baptist and Anglican. Now there is a presence of the Church of God. Echoing Achilles, he explained that the majority of the community is religious and attend regularly, but some are only religious but do not go to church. I asked if there was competition or animosity with regards to the construction of the Church of God up the street. He was ambivalent about the distinctions. Some folk do not like systems of the Anglican Church while others simply do not care...

Church is an institution that is forged deep within life in Exumas and overlap with family, education, and politics

Church, Christian Values, Spiritual Beliefs, Anglican, Baptist



EPO07 / JCJ005

23°02'26.46"N / 77°46'8.22"W
03.2013

"Native", Spectacle of the Tourist Economy Georgetown

She explained to us that now most of people work in the hotels and the construction of the hospital, and some are straw vendors -"they called it native"- to sell souvenirs to tourists. She explains things in a very simple way, showing life as a natural thing, as something that does not to be very much thought but just lived. "In the past people would farm and have cattle and fish but nowadays everything has changed. In the past we did not have money, so we farmed beans, corn and had pigs that we killed and share the meat". "Now people have money"

Making a living in Exuma has dramatically shifted from farming and fishing to tourism, and continues to be in flux.

Livelihood, Commodification, Farming, Food, Old Times



FR001 / PB037

23°26'40.80"N / 79°30'31.50"W
03.2013

The institution of wage Labor demands leisure Williams Town

Again, the population number given was around 150 people. Marquis described the nightlife in Williams Town as repetitive. He said there is little to do in all of the Exumas compared to places like Miami where he went for college (Miami Gardens, where his sister also attended). He said it is mostly consisting of local music performances in Georgetown by what are referred to as Rake & Scrape bands. He did mention that there were beach parties, although swimming itself was not common. Other pastimes included baseball, track, and he shared a story where he and friends tried to make a boat for fun, but it sank. He did admit that while baseball and softball were very popular in his father's generation, interest has waned, so the fields are in disuse and disrepair. However, the youth still hike, gather cocoa plums (presumably referring to the Coca Fields) as well as sea grapes, and hopping around the sea rocks. Fishing is also an activity that was more popular the generation before.

Social Life describes existence outside of work and between people and is a basic building block in cultural reproduction.

Social Life, Pastimes, Baseball, Nightlife



Photo: Wikimedia

INTERVIEW: 10/20/2014
00:00

The ecology of Easter tells its own history Easter Island's Rapa Nui

An ancient tradition is often cited about Easter Island, which is the present name of the Rapa Nui. In the same way that the geology of Easter Island tells its own history, the island's ecology also tells its own history. The Rapa Nui people also tell their own history in the words of their oral tradition, which is often cited as the most reliable source of information about the island's history. The oral tradition of the Rapa Nui people is often cited as the most reliable source of information about the island's history. The oral tradition of the Rapa Nui people is often cited as the most reliable source of information about the island's history.

Some so-called experts speak through the language of the ecology and history of the island, which is often cited as the most reliable source of information about the island's history.

Wikimedia Commons, Photo: Wikimedia Commons



Photo: Wikimedia

INTERVIEW: 10/20/2014
00:00

Land Heritage and Real Estate Rapa Nui

What is the real intention of interest of the Government in changing the regime of land ownership? What is the real intention of interest of the Government in changing the regime of land ownership? What is the real intention of interest of the Government in changing the regime of land ownership? What is the real intention of interest of the Government in changing the regime of land ownership?

Land Heritage and Real Estate Rapa Nui

Wikimedia Commons, Wikimedia Commons, Wikimedia Commons



Photo: Wikimedia

INTERVIEW: 10/20/2014
00:00

Underwater Entrepreneur Rapa Nui

The idea of an underwater entrepreneur is often cited as the most reliable source of information about the island's history. The idea of an underwater entrepreneur is often cited as the most reliable source of information about the island's history. The idea of an underwater entrepreneur is often cited as the most reliable source of information about the island's history.

Underwater Entrepreneur Rapa Nui

Wikimedia Commons, Wikimedia Commons, Wikimedia Commons



Photo: Wikimedia

INTERVIEW: 10/20/2014
00:00

Why is the first movement? Rapa Nui

Why is the first movement? Why is the first movement?

Why is the first movement? Rapa Nui

Wikimedia Commons, Wikimedia Commons, Wikimedia Commons



Photo: Wikimedia

INTERVIEW: 10/20/2014
00:00

For weather values Rapa Nui

For weather values Rapa Nui

Wikimedia Commons, Wikimedia Commons, Wikimedia Commons



Photo: Wikimedia

INTERVIEW: 10/20/2014
00:00

All of them Rapa Nui

All of them Rapa Nui

All of them Rapa Nui

Wikimedia Commons, Wikimedia Commons, Wikimedia Commons



Art Title: *Greenhouse*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of light and shadow in a greenhouse. The artist was inspired by the way the light filters through the plastic covering, creating a soft, ethereal atmosphere. The composition is a study of form and color, capturing the delicate beauty of the plants within.



Art Title: *Cyclist*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of movement and form. The artist was inspired by the way the cyclist's body is positioned on the bike, creating a sense of forward motion. The composition is a study of balance and rhythm, capturing the grace of the rider.



Art Title: *Harvest*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of labor and the land. The artist was inspired by the way the person is working in the field, creating a sense of purpose and connection to the earth. The composition is a study of texture and color, capturing the beauty of the harvest.



Art Title: *House*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of architecture and light. The artist was inspired by the way the house is lit, creating a sense of warmth and history. The composition is a study of form and color, capturing the beauty of the structure.



Art Title: *Sign*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of typography and color. The artist was inspired by the way the sign is designed, creating a sense of nostalgia and community. The composition is a study of form and color, capturing the beauty of the message.



Art Title: *House*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of color and form. The artist was inspired by the way the house is painted, creating a sense of vibrancy and life. The composition is a study of form and color, capturing the beauty of the structure.



Art Title: *Interior*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of light and shadow in an interior space. The artist was inspired by the way the light filters through the room, creating a sense of warmth and intimacy. The composition is a study of form and color, capturing the beauty of the scene.



Art Title: *Beach*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of light and shadow on a beach. The artist was inspired by the way the light reflects off the water and sand, creating a sense of peace and tranquility. The composition is a study of form and color, capturing the beauty of the scene.



Art Title: *Street*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of light and shadow on a street. The artist was inspired by the way the light filters through the trees and buildings, creating a sense of depth and perspective. The composition is a study of form and color, capturing the beauty of the scene.



Art Title: *Book Cover*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of text and color. The artist was inspired by the way the book cover is designed, creating a sense of history and mystery. The composition is a study of form and color, capturing the beauty of the design.



Art Title: *Sunset*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of light and shadow at sunset. The artist was inspired by the way the light filters through the water, creating a sense of peace and tranquility. The composition is a study of form and color, capturing the beauty of the scene.



Art Title: *Church*
Artist: *John A. Sweeney*
Medium: *Oil on Canvas*
Year: *2018*

Background/Inspiration:
 This work is a study of light and shadow on a church. The artist was inspired by the way the light filters through the windows, creating a sense of peace and tranquility. The composition is a study of form and color, capturing the beauty of the structure.



UNEP
 United Nations Environment Programme

Project Overview
 The project aims to improve the resilience of coastal communities in the face of climate change. This is achieved through a combination of natural and structural measures, such as mangrove restoration and the construction of sea walls. The project also focuses on community education and capacity building to ensure that residents are prepared for future challenges.

Project Location
 Maldives, South Maldives, Addu City, P. O. Box 1000



UNEP
 United Nations Environment Programme

Project Overview
 This project focuses on the restoration of mangrove ecosystems, which are vital for coastal protection and biodiversity. The work involves planting native mangrove species and maintaining the health of the existing forest. Community members are actively involved in the process, and the project also includes educational activities to raise awareness about the importance of mangroves.

Project Location
 Maldives, South Maldives, Addu City, P. O. Box 1000



UNEP
 United Nations Environment Programme

Project Overview
 This project aims to enhance the resilience of coastal infrastructure. It involves the construction and maintenance of sea walls and other protective structures to safeguard buildings and roads from sea-level rise and storm surges. The project also includes regular inspections and repairs to ensure the structures remain effective over time.

Project Location
 Maldives, South Maldives, Addu City, P. O. Box 1000



UNEP
 United Nations Environment Programme

Project Overview
 This project focuses on community education and capacity building. It involves conducting workshops and training sessions to help residents understand the risks of climate change and the steps they can take to reduce their carbon footprint. The project also aims to build the resilience of the community by teaching them how to prepare for and respond to natural disasters.

Project Location
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Project Location
 Maldives, South Maldives, Addu City, P. O. Box 1000



Landmark
L'Esperanza
2016

Landmark

Landmark is a small school in the town of L'Esperanza, Cuba. The building was built by the Cuban government and is a landmark in the town. It is a simple building with a corrugated metal roof and a few windows. The building is surrounded by a dirt road and some trees. The building is a landmark in the town of L'Esperanza, Cuba.

Photo: [unreadable]



Artwork
L'Esperanza
2016

Artwork

Artwork is a large, textured, reddish-brown object. It is a piece of art that is made of many small, reddish-brown pieces. The artwork is displayed in a frame. The artwork is a piece of art that is made of many small, reddish-brown pieces. The artwork is displayed in a frame. The artwork is a piece of art that is made of many small, reddish-brown pieces. The artwork is displayed in a frame.

Photo: [unreadable]



Landmark
L'Esperanza
2016

Landmark

Landmark is a white cow in the town of L'Esperanza, Cuba. The cow is a landmark in the town. It is a white cow with a black collar. The cow is standing in a field. The cow is a landmark in the town of L'Esperanza, Cuba.

Photo: [unreadable]



Landmark
L'Esperanza
2016

Landmark

Landmark is a wooden structure in the town of L'Esperanza, Cuba. The structure is made of wood and has many small, rectangular objects attached to it. The structure is a landmark in the town of L'Esperanza, Cuba.

Photo: [unreadable]



Landmark
L'Esperanza
2016

Landmark

Landmark is a colorful building in the town of L'Esperanza, Cuba. The building has a yellow and green facade. The building is a landmark in the town of L'Esperanza, Cuba.

Photo: [unreadable]



Landmark
L'Esperanza
2016

Landmark

Landmark is a dark-colored pickup truck in the town of L'Esperanza, Cuba. The truck is a landmark in the town. It is a dark-colored pickup truck with a black bed. The truck is parked in a field. The truck is a landmark in the town of L'Esperanza, Cuba.

Photo: [unreadable]



Landmark
L'Esperanza
2016

Landmark

Landmark is a white, textured surface in the town of L'Esperanza, Cuba. The surface has yellow and orange markings. The surface is a landmark in the town of L'Esperanza, Cuba.

Photo: [unreadable]



Landmark
L'Esperanza
2016

Landmark

Landmark is a group of people in the town of L'Esperanza, Cuba. The group is looking at something on a table. The group is a landmark in the town of L'Esperanza, Cuba.

Photo: [unreadable]



Landmark
L'Esperanza
2016

Landmark

Landmark is a blue boat in the town of L'Esperanza, Cuba. The boat is a landmark in the town. It is a blue boat with a white canopy. The boat is on a body of water. The boat is a landmark in the town of L'Esperanza, Cuba.

Photo: [unreadable]



Landmark
L'Esperanza
2016

Landmark

Landmark is a person in a white shirt and a red hat in the town of L'Esperanza, Cuba. The person is sitting in a small boat on a body of water. The person is a landmark in the town of L'Esperanza, Cuba.

Photo: [unreadable]



Landmark
L'Esperanza
2016

Landmark

Landmark is a large, textured, light-colored object in the town of L'Esperanza, Cuba. The object is a landmark in the town. It is a large, textured, light-colored object. The object is a landmark in the town of L'Esperanza, Cuba.

Photo: [unreadable]



Landmark
L'Esperanza
2016

Landmark

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Photo: [unreadable]

AUGUST 19 — SEPTEMBER 15

ATLAS, PROTECTED AREAS AND VULNERABILITY

Abner Calixter

The overall goal of this trip was to collect enough information for the creation of an Atlas of the Exuma Archipelago. An exploratory study was conducted searching for data related to Exumian population, fauna, flora, geology, elevation and ownership. Due to the strong centralisation of information, the research took place mostly in Nassau, collaborating with governmental agencies, NGOs, specialists and educators. At the same time, efforts to understand and gather data regarding a few aspects of climate change vulnerability in The Bahamas were also undertaken during the journey.



Besides gathering and compiling baseline information for 365 islands and cays, the importance of producing an Atlas about Exuma directly relates to the need of easy and quick access to information such as maps, geographic information, social and economics

statistics as well as fauna and flora. There is a hope that the Atlas would contribute to the local environmental management, with the consolidation of the island and cays' natural assets inventoried and embedded in a single format (book or electronic version).

Purposes-findings

The Bahamas is highly dependent on Nassau. Decisions and policies made here are extended to the whole country. Any extreme environmental event (such as the strike of a super storm) or major economical disarrangements would indeed be felt in every settlement within the national boundaries, including Exuma.

Based in The Bahamas Environmental, Science and Technology (BEST) Commission office, the first week was devoted to networking and reaching key people that could provide relevant information about Exuma. The key point was to understand the appropriate procedure to have access to the data, in addition to learning how that data was surveyed or collected. Due to the country's geography, surveys in The Bahamas can be extremely costly. For this reason, another important point was to better understand the available level of accuracy.

The Bahamas has a national policy called "The Statistics Act," which prevents personal information disclosure from Bahamian citizens. The policy adopted by the government is to not disclose precise information, rather aggregating data from settlements with less than 20 households to the larger, closer one. According to the Statistics Department this procedure saves money and preserves the dwellers'



confidentiality in small islands and cays. So even getting accuracy in just the precise number of Exuma's population by settlement would demand an effort of traveling to every single island and cay, and even after doing so, it is unclear if the findings would get permission to be disclosed.



On the list of contacts to follow up with were scientists, specialists and government officials. The first round of relevant information about Exuma was obtained with the Department of Statistics and compiled detailed information about Exumian population

such as demography, age, gender, ethnicity, occupation, self-employment, citizenship, religion and birth rates. Everything divided by settlement, following the guidelines from the Statistics Act. At the same time, BEST Commission provided a list of Environmental Impact Assessments (EIA) where it is possible to find details related to fauna, flora geology and the prospective of the development plan considered for each island or cay studied.

The support of governmental agencies, BEST Commission and Bahamas National Trust (BNT) was essential to obtain data from Exuma. Especially relevant were the outcomes of the Survey on Resources provided by Dr. Cant, from Water & Sewerage Corporation. Dr. Cant is a geologist and hydrologist who provided us very insightful thoughts about inland flooding due to sea level rise and climate change in Exuma. "Many are concerned about storm surge. I believe the biggest

problem with sea level rise is the water fresh loss due the salt-water invasion to aquifers,” he stated. In fact, Dr. Cant can be considered one of the main contributors of this research. He is knowledgeable scientist and he kindly connected the project with other researchers such as Ms. Kelly Jackson, PhD student in Miami University and specialised in Exuma’s geology.



An accurate identification and crosschecking of information about the names of the 365 island and cays has been made in collaboration with The Bahamas National Trust. In order to find or confirm Exumian cays and islands’ names, the BNT designated a Bahamian geographer from its staff. He previously worked for the Ministry of Environment. In addition, BNT staff kindly gave a tour on the National Parks established and managed by BNT in New Providence: The Retreat, Harrold and Wilson Ponds Park, Bonefish Pond and Primeval Forest National Park.

In all of those parks hosted in Nassau and listed above, I could find a contrasting reality. There was a lot of trash in supposedly “untouched” areas, showing the extent to which waste is a difficult challenge to face in the management of the parks.

At Harold and Wilson Ponds Park, there was an extraordinary blooming of aquatic weeds (Cat Tails) covering the



whole water surface, apparently due to excessive run off of organic matter from the neighbouring farm. At Bonefish Pond there is a mix of realities. There were preserved mangroves in great shape serving as a fish nursery, coexisting with developments and heavy machinery dredging the ocean to build decks or mooring channels.

To conclude, a good amount of high quality data was obtained through NGO’s such as The Nature Conservancy (TNC) and BREEF. The TNC provided papers, images and GIS files whereas BREEF did so related to Bahamian vulnerability and natural assets in Exuma measured in terms of economic value.

One of the weekends I had the chance to meet the parents of one of the Bahamian students of the Harvard GSD Career Discovery Program. They mentioned how great and intense an experience it was for their daughter. Related to the relationship between private property and preservation, the student’s father said, “If you are the lucky guy that has property and you get your property granted within a preserved area, the price of your property goes through the roof.” It made me wonder if we should do heavy research on social, economic and ecological trade-offs in preservation areas, no-take zones or national parks.







V

Inspirations





WABOAL

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CAPACITY

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MONAIRK

Creative Lifestyles

Mangrove trees deal with the salt problem in a variety of ways. If you licked the back of a black mangrove leaf, you would find it very salty. (Please resist the temptation to try). Black mangroves excrete excess salt through tiny pores on the leaf surface. Red mangroves are able to filter out salt right at the roots. A mangrove swamp will have portions that are dry while other portions are much wetter. Flooded by tide approximately every 12 hours, the sand here is always salty and wet, and this permits a variety of mangrove species to survive.

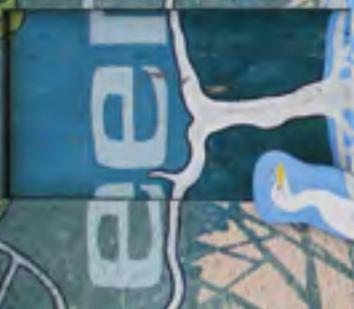
We have a garbage pit that we burn things in. Little Farmers Cay has the biggest pit in the cays – so, we have no problem with garbage.

The things we value the most about living here are peace and tranquillity, the beauty of the islands, fresh fish and conch, and there is no violence, no shootings and we live in our ancestor's homes.





!sawuqoo oannamas!



think







AKOP BOX









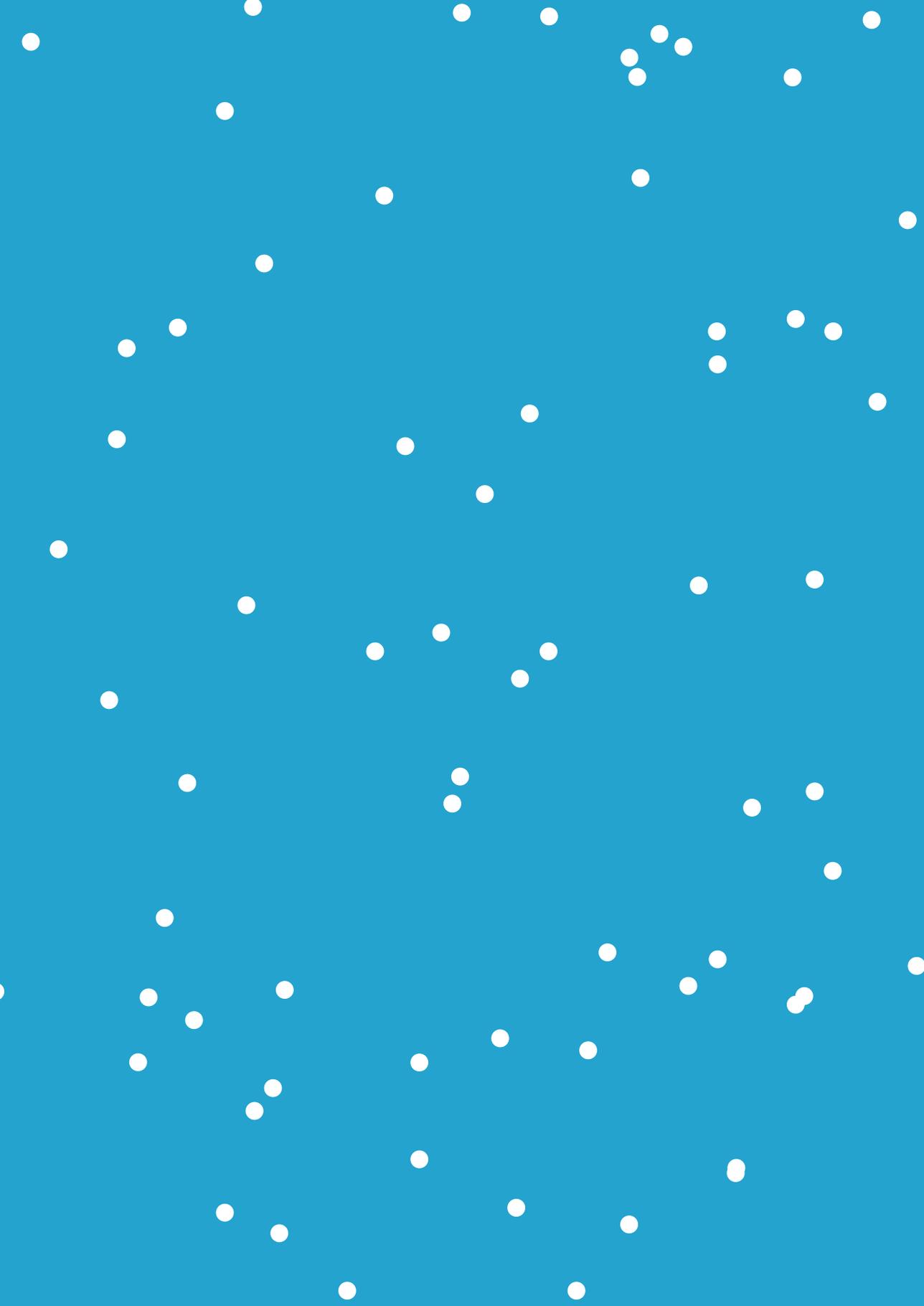














VI

Executive Education

- ¹ February 2013/ Harvard GSD**
- ² May 2013/ Nassau**
- ³ May 2013/ George Town**
- ⁴ July 2013/ Harvard GSD**



COURSE DESCRIPTION

Leading Organizations February 5-8, 2013

Leading Organizations is a four-day program designed for senior executives in complex, high-stakes environments worldwide. The program has special relevance to those engaged in real estate development, real estate finance, architecture, construction, engineering, planning, infrastructure, and related sectors.

Participants refine and expand their personal leadership skill sets to effectively address their most significant strategic challenges.

Starting from the baseline of a self-assessment and a specialized peer-feedback report, participants then delve further via a set of five leadership lenses:

- **Leading Anew: Building an organization, unfolding a new strategy, beginning an initiative, undertaking a new role**
- **Leader as Rebuilder: Recovering from a “near-death” experience, coming back from crisis, long- and short-term perspectives**
- **Leader as Bridge-Builder: Reconciling conflicting interests, creating new forms of collaboration**
- **Leader as Orchestrator: Complex decision-making, gathering organizational support, cascading messages**
- **Leader as Talent Magnet: Attracting and retaining a leadership cadre, creating successful succession**

The classroom experience comprises case discussions and concept overviews as well as teamwork and other structured exercises. Pre-program preparation includes a self-assessment, a 360-feedback survey, readings in case studies, and guided individual planning.

Leading Organizations provides an unparalleled opportunity to hone personal leadership skills through close work with faculty, industry luminaries, and fellow participants.

AGENDA

Day 1, Tuesday, February 5

8:30— Registration
9:00 am
The Inn at Harvard, Harvard
Crimson Room
1201 Massachusetts Avenue,
Cambridge

9:00— Introductions, Objectives,
9:15 am Review of Agenda

Rob Galford and
Rena Fonseca

9:15— Leadership Platforms
10:45 am Overview Case and
Frameworks

Rob Galford

Reading: Steven Little at Compton Properties
Case Study

10:45— Break
11:00 am

11:00 am— First, Know Thyself: Self and
12:30 pm 360 Assessment

Kate Livingston

12:30— Class Photo
12:45 pm

The Inn at Harvard, Atrium

12:45— Group Luncheon
1:30 pm

The Inn at Harvard, Atrium

1:30— Self and 360 Assessment
3:00 pm

Kate Livingston

3:00— Break
3:15 pm

3:15— Your Story as Organizational
5:15 pm Leader: Lessons from
Sundance

Jonathan Korn and
Susan Warshauer

Reading: Leading Minds
Video: Ken Burns on Story

Day 2, Wednesday, February 6

9:00— Links and Overview

9:15 am

Rob Galford

The Inn at Harvard, Harvard
Crimson Room

9:15— Leading Anew

11:15 am

Joseph Sherman

11:15— Break

11:30 am

11:30 am— Leading Anew: What Time is
1:00 pm Your City?

Bing Wang

1:00— Group Luncheon

1:45 pm

The Inn at Harvard, Atrium

1:45— Leader as Rebuilder

3:45 pm

Alexander Kelso

Reading: The Shifting Landscape of New Orleans



4:00—
4:30 pm

Reception
with GSD Dean
Mohsen Mostafavi

The Harvard Faculty Club,
Reading Room

4:30—
5:00 pm

GSD Dean Welcomes the
Bahamian Delegation

The Harvard Faculty Club,
Reading Room

Day 3, Thursday, February 7

9:00—
9:15 am

Links and Overview

Rob Galford

The Inn at Harvard, Harvard
Crimson Room

9:15—
10:45 am

Leader as Bridge-Builder/
Orchestrator

Tom Kearns

Reading: Wicked Problems and Social Complexity,
Seven Reasons Carrots and Sticks (Often) Don't Work,
LOBS Development Project

10:45—
11:00 am

Break

11:00 am—
12:30 pm

Taking this Forward:
Tripwires of Leadership/
Overcoming Resistance

Rob Galford

12:30—
1:30 pm

Group Luncheon

The Inn at Harvard, Atrium

1:30— Calibrating Leadership:
3:00 pm Making the Call

Joe Badaracco

3:00— Leading Organizations
3:15 pm Exercise

Rob Galford and
Kate Livingston

4:45— Individual Challenges
5:15 pm Review and Prep

2:15— Individual Challenge
3:00 pm Presentations and
Facilitated Discussion

Rob Galford and
Kate Livingston

3:00 pm Certificate Presentation

Adjourn

Day 4, Friday, February 8

8:45— Individual Challenge
9:45 am Presentations and
Facilitated Discussion

Rob Galford and
Kate Livingston

9:45— Break
10:00 am

10:00 am— Leader as Talent Magnet
11:30 pm

Michael Ward

Reading: Toys R Us Case Study

11:30— Break
11:45 am

11:45 am— Individual Challenge
1:15 pm Presentations and
Facilitated Discussion

Rob Galford and
Kate Livingston

1:15— Group Luncheon
2:15 pm

The Inn at Harvard, Atrium

PARTICIPANTS

Carey, Eric
Executive Director
Bahamas National Trust

Johnson, Camille
Permanent Secretary
Ministry of Environment and Housing

Knowles, David
Director of Parks
Bahamas National Trust

Major, Gordon
Director of Housing
Department of Housing

McPhee, Earlston
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Bahamas Ministry of Tourism

Newbold, Rochelle
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Pratt, Michael
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Ministry of Works and Urban
Development

Weech, Philip
Director
Bahamas Environment, Science and
Technology (BEST) Commission





COURSE DESCRIPTION

Building Capacities for Our Future—Nassau and
Georgetown Workshops

Sponsored by Harvard University Graduate School of Design
Executive Education

Nassau, May 1-3, 2013 | George Town, May 6-7, 2013

We are pleased to convene invited members of The Bahamas' political leadership, civil service, local communities, and representatives from various businesses, institutions and non-profit organizations, to participate in separate workshops to be held in Nassau and Georgetown.

Your participation is a vital contribution to an on-going effort to create a more sustainable future and to secure the best quality of life for the inhabitants of The Bahamas. The diversity of backgrounds, knowledge and experience of the workshop participants is essential to conducting an inclusive process of inquiry and harnessing the creative potential of people with different kinds of talents working together to solve problems.

The workshops this year are not stand-alone events; but form part of a larger project of research, education, and public outreach under a three-year agreement between the Harvard University Graduate School of Design (GSD) and the Government of The Bahamas and the Bahamas National Trust. As such, the subject matter focus and workshop methodology is calibrated and coordinated with the larger project, entitled Sustainable Future for Exuma. While our specific focus is Exuma, the essential nature of the work and ultimate mission is within the context of the nation and region.

This is the initial year of the three-year project, during which our focus is on the identification and framing of key issues; collection, interpretation, and organization of information; and initial efforts for outreach and community education. Accordingly, the Executive Education training program are designed to be a highly interactive collaboration between the invited participants and the Harvard faculty to advance the work in these areas as co-developers.

THE PROGRAMME

The focus of these workshops will be the identification and examination of critical issues related to individual and community health/fitness; food/food security; and local economy/work in the Bahamas and specifically in Exuma. Participants will collaborate with program faculty to co-develop the conceptual frameworks, processes, and tools to enable better decision-making around on-going and new initiatives relating to these areas. Working together effectively toward meeting common objectives, we hope to leave participants with methods, tools, and techniques that will enable them to make effective use of the research being developed at the GSD. The findings of these workshops are intended to feed into the overall programming, planning, and design of sustainable spatial strategies, as well as sustainable social, economic, and environmental practices.

Target Audience

Participants will comprise national political leadership, the civil service, and a range of other stakeholders, including local community leaders, land owners, professionals in health/human services and planning, individuals from different types of businesses/commercial enterprises, representatives of NGOs, local institutions, and others.

Programme Format

Presentations and subject matter briefings by Harvard faculty;
Workshops, consisting of team work in groups with plenary sessions for discussion;
Forum for public discussion and participation, based on workshop findings.

Academic Leader

Paul Nakazawa, Adjunct Associate Professor of Architecture,
Harvard University Graduate School of Design

Program Faculty

Gareth Doherty, Lecturer in Landscape Architecture and Urban
Planning & Design, Harvard University Graduate School of Design

Padraic Kelly, Managing Director, Happold Consulting, London

AGENDA

Sheraton Nassau Beach Resort,
Arawak Room
4914 West Bay Street, Nassau

Day 1, Wednesday, May 1

8:30— Registration
9:00 am

9:00— Welcome/ Introduction
9:15 am
Rena Fonseca

9:15— Workshop Orientation
9:30 am
Paul Nakazawa and
Gareth Doherty

9:30— Participant Introductions
10:00 am
Rena Fonseca

10:00— Presentation 1: Workshop
11:00 am Frameworks
Paul Nakazawa

11:00— Break
11:15 am

11:15 am— Presentation 2: Report on
12:00 pm the Research
Gareth Doherty

12:00— Lunch Break
1:30 pm

1:30— Briefing: Health
2:15 pm
Paul Nakazawa

2:15— Briefing: Food
3:00 pm
Gareth Doherty

3:00— Break
3:15 pm

3:15— Briefing: Economy
4:00 pm
Padraic Kelly

4:00— Day's Summary, Team
4:30 pm Assignments, Homework
Paul Nakazawa and
Rena Fonseca

Day 2, Thursday, May 2

9:00— Team Mobilization Briefing
9:30 am
Paul Nakazawa

9:30— Teams Deploy and Work
11:00 am
Paul Nakazawa,
Gareth Doherty, and
Padraic Kelly

11:00— Break
11:15 am

11:15— Teams Summarize
11:30 am Discussion

11:30 am— Teams Check-In
12:00 pm

12:00— 1:30 pm	Lunch Break	11:30 am— 12:00 pm	Teams Document Findings and Prepare Presentation
1:30— 2:30 pm	Presentation 3: Sustainable Development Case Studies Padraic Kelly	12:00— 12:30 pm	Plenary Session with 10-minute Presentation by Each Team Paul Nakazawa, Gareth Doherty, and Padraic Kelly
2:30— 4:00 pm	Teams Resume Work		
4:00— 4:15 pm	Break	12:30— 1:00 pm	Closing Remarks, Certificate Presentation Rena Fonseca
4:15— 4:30 pm	Teams Document Findings and Prepare Presentation		
4:30— 5:00 pm	Plenary Session with 10-minute Presentation by Each Team Paul Nakazawa, Gareth Doherty, and Padraic Kelly	1:00— 2:00 pm	Group Luncheon Sheraton Nassau Beach Resort, Taino Room
5:00— 5:15 pm	Day's Summary, Q&A Rena Fonseca	2:00— 3:00 pm	Public Forum: Health, Food, and Economy Paul Nakazawa, Gareth Doherty, and Padraic Kelly
		3:00— 4:00 pm	Reception Sheraton Nassau Beach Resort, Gazebo West-Patio

Day 3, Friday, May 3

9:00— 9:30 am	Mobilization Briefing Paul Nakazawa
9:30— 11:15 am	Teams Deploy and Work Paul Nakazawa, Gareth Doherty, and Padraic Kelly
11:15— 11:30 am	Break

PARTICIPANTS

Mrs. Andrea A. Adderley-McQuay
Senior Research Officer
The Central Bank of The Bahamas

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Nutrition Unit

Mrs. Barbara Bethel
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Exumas and Ragged Island Clinics

Ms. Janel Campbell
Senior Executive
Bahamas Ministry of Tourism
Sustainable Tourism Unit

Mr. Theophilus Cox
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Mrs. Kelsie Dorsett
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Mrs. Dolly King
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The Supreme Court of The Bahamas
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Department of Public Health

Ms. Rochelle Newbold
Project Manager
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Ms. Avis Richardson
Senior Chemist
Ministry of Agriculture and Department
of Marine Resources
Food Safety and Technology Laboratories

Mr. Alfred Rolle
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Black Point District Council

Ms. Glenda Rolle
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Family Life Education
Ministry of Education, Science and
Technology

Ms. Kelly Kavanagh
Salmond Consultant on The Social
Determinants of Health
Pan American Health Organization

Mr. Reginald W. Smith
President
Serbay Ltd.

Ms. Portia Sweeting
Director of Education
Bahamas National Trust

Mr. Gavin Watchorn
President
AML Foods Limited

Mr. Philip Weech
Director
Ministry of Environment and Housing
BEST Commission



COURSE DESCRIPTION

Building Capacities for Our Future—Nassau and
Georgetown Workshops

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The workshops this year are not stand-alone events; but form part of a larger project of research, education, and public outreach under a three-year agreement between the Harvard University Graduate School of Design (GSD) and the Government of The Bahamas and the Bahamas National Trust. As such, the subject matter focus and workshop methodology is calibrated and coordinated with the larger project, entitled Sustainable Future for the Exumas. While our specific focus is The Exumas, the essential nature of the work and ultimate mission is within the context of the nation and region.

This is the initial year of the three-year project, during which our focus is on the identification and framing of key issues; collection, interpretation, and organization of information; and initial efforts for outreach and community education. Accordingly, the Executive Education Workshops are designed to be a highly interactive collaboration between the invited participants and the Harvard faculty to advance the work in these areas as co-developers.

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The focus of these workshops will be the identification and examination of critical issues related to individual and community health/fitness; food/food security; and local economy/work in the Bahamas and specifically in Exuma. Participants will collaborate with program faculty to co-develop the conceptual frameworks, processes, and tools to enable better decision-making around on-going and new initiatives relating to these areas. Working together effectively toward meeting common objectives, we hope to leave participants with methods, tools, and techniques that will enable them to make effective use of the research being developed at the GSD. The findings of these workshops are intended to feed into the overall programming, planning, and design of sustainable spatial strategies, as well as sustainable social, economic, and environmental practices.

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Program Faculty

Gareth Doherty, Lecturer in Landscape Architecture and Urban Planning & Design, Harvard University Graduate School of Design

Padraic Kelly, Managing Director, Happold Consulting, London

AGENDA

St. Andrew's Community Centre
George Town, Exuma

Day 1, Monday, May 6

9:00— 9:15 am Welcome/Introduction of GSD Team

Rena Fonseca

9:15— 9:30 am Participant Introductions

Rena Fonseca

9:30— 9:45 am Workshop Orientation

Paul Nakazawa

9:45— 10:30 am Presentation 1: Workshop Frameworks

Paul Nakazawa

10:30— 10:45 am Break

10:45— 11:15 am Presentation 2: Exuma Project/Research on Islands

Gareth Doherty

11:15 am— 12:00 pm Briefings: Health, Food, and Economy

Paul Nakazawa and Gareth Doherty

12:00— 1:30 pm Group Luncheon

Teams have lunch with their faculty coach

1:30— 3:00 pm Workshop Session #1

Paul Nakazawa, Gareth Doherty, and Padraic Kelly

3:00— 3:15 pm Break

3:15— 3:45 pm Share the Work

3:45— 4:15 pm Q&A - Discussion

Paul Nakazawa, Gareth Doherty, and Padraic Kelly

4:15— 4:45 pm Refreshments

Day 2, Tuesday, May 7

9:00— 9:30 am Case Study: Martha's Vineyard, Massachusetts

Paul Nakazawa

9:30— 11:00 am Workshop Session #1

Paul Nakazawa, Gareth Doherty, and Padraic Kelly

11:00— 11:15 am Break

11:15 am— 12:15 pm Group Check-in

- 12:15— Group Luncheon
1:00 pm Teams have lunch with their faculty coach
- 1:00— Presentation: Vision and
2:00 pm Strategy for Sustainable Futures
- Padraic Kelly
- 2:00— Closing Remarks, Certificate
2:15 pm Presentation
- Rena Fonseca
- 2:15— Optional Session on
3:00 pm Economy
- Padraic Kelly



PARTICIPANTS

Ms. Joyce Bailey
Royal Bank of Canada

Mr. Kenneth D. Bowe
Creator/Founder
Chat 'n' Chill

Mrs. Kwanza Clay Bowe
Exuma Destination Wedding Expert

Mr. Teddy Clarke
Exuma Chamber of Commerce

Mr. K. Ramon Darville
Darville Lumber Co. Ltd.

Ms. Pamela Gorte
District Education Officer
Bahamas National Trust

Mr. Rufus Gray
Manager
Exuma Yacht Club and Marina

Mrs. Pet Hanna
Exuma Tourist Office

Mr. Romeo Josey

Mrs. Larriett Josey-Dean
Exuma Career Training College

Mr. Basil Minns

Ms. Rochelle Newbold
Project Manager
Sustainable Future for Exuma

Rev. John S. Rolle
Pastor
Mt. Olive Union Baptist Church

Mrs. Nevillene Rolle
Principal
St. Andrew's Anglican School

Mr. Pedro Rolle
Exuma Chamber of Commerce

Mr. Robert Rolle
Eddie's Edgewater

Mr. Cecil Smith
Ocean View Realty

Rev. Cedric Smith
Mt. Sinai Baptist Church

Mr. Reginald W. Smith
President
Serbay Ltd.

Ms. Sarah Swainson
General Manager
Exuma Beach Resort

Mr. Cordell Thompson
Director
Pompey Center for Studies in Traditional
Art, Food, Music and the Unresolved
Mysteries

Countess Beatrice von der Schulenburg

Ms. Arnette Watson
Branch Manager
Scotiabank (Bahamas) Ltd.

BRIEFING SUMMARIES EXERCISES

Food Workshop—Session 1

Part 1

Using the sheets provided, outline a typical daily Bahamian diet across the generations:

- Your grandparents
- Your parents
- Yourself
- Your children
- Your grandchildren

Has the diet changed considerably between the generations? If so, at what point did things change? Why did things change?

What foods have remained constant? Can, and how, might the national tastes change?

Do different social groups eat different foods?

Might you eat synthetic food? Out-of-date food? Lionfish?

Part 2

Comment on the map provided of current agricultural areas in The Bahamas. Using the map, speculate on the future of food production in the country. Is food security something to strive for? At what level? (At home, or in terms of the nation?) How might The Bahamas become more self-sufficient in terms of food? How might global alliances be formed to impact on food production in the country?

Considering technological advances in areas such as hydroponics, mobility, and changing tastes and lifestyles, how might the map of food production change in the coming years? Redraw the map of agricultural food production in The Bahamas, 50 years from now, and 100 years from now.

Food Workshop—Session 2

Food Culture and Expectations

To be sustainable does not necessarily mean to give something up, sustainability can be enjoyable, and it can taste good. Some

people say that to bring about a more sustainable built environment (including issues of health, food, and economy) that it is necessary to “dislocate desires,” in other words to encourage a change in values, or behaviour (in the way that conch salad might be replaced with lion fish salad, for example).

Outline five food desires you might aim to dislocate in The Bahamas, and how you might go about doing this?

Health Workshop—Session 1 Communications/ Public Education

Strategies to Address Obesity in the Bahamas

With over 70% of the Bahamian population reported to be overweight or obese, and an estimated two-thirds of annual medical expenditures in the nation attributable to poor life style choices, the need and urgency to address human health factors such as obesity is an urgent priority for all sectors of society.

“In The Bahamas, obesity and being overweight is a public health problem that affects all age groups and income levels. Among children aged 2-4 years old, 11% are overweight or obese; with school-screening data reporting that among children in grade 1, obesity is up to 9.2%; for grade 6, it is up to 18.3% and among those in grade 10, it is up to 23.7%. The rates continue to increase with age; 65% of Bahamians between 21-60 years old are overweight or obese. Recent studies also indicate that females of lower economic status in The Bahamas with less than tertiary education appear to be more vulnerable to obesity. There are well-known determinants of obesity that have been identified such as gestational weight gain, incorrect breast-feeding practices, sleep duration and quality, hours of television and screen (videogames) viewing, availability of food and marketing environments, such as food advertising, unhealthy dietary practices (i.e., consumption of fast-food, sugar sweetened beverages) and sedentary activities.

Consequences and Cost of Obesity

The prenatal period and early childhood are critical times for the prevention of obesity and chronic diseases later in life. During childhood, obesity has consequences on physical and mental health status, on the demand for health care, school performance and quality of life. Obesity is

linked to psychosocial, pulmonary, gastrointestinal, renal, musculoskeletal, neurological, cardiovascular and endocrine disorders. Additionally, research conducted in the United States, Latin America and Europe report on the effects of being overweight on lower math and reading scores that persist through the end of first grade and more missed school days. Obesity at age 14 was associated with low school performance at age 16, as well as a low level of education persisting until age 31. The cost of obesity is visible through the increasing demand of healthcare services and consequently costs for the treatment of obesity-related conditions such as hypertension and diabetes. In The Bahamas in 2001, the direct and indirect costs of hypertension and diabetes represented 86% of GDP (\$46.4 million) and 50% of GDP (\$27.3 million) respectively.”¹

In FY2012, The Government of The Bahamas, acting through its Ministry of Social Services, received from the Inter-American Development Bank a \$7.5 Million loan to address the need to strengthen the country’s social safety net (the “Project.”)

The Project’s objective is “to promote human capital accumulation and poverty alleviation through the consolidation of existing programmes into a CCT (Conditional Cash Transfer) targeted to the poor and focused on changing behaviour to improve educational achievement and healthier life style among children from poor households.”

Additional details and public domain documents for the Project are available at: <http://www.iadb.org/en/projects/project-description-title,1303.html?id=BH-L1030>

Workshop Task

The task presented to the workshop participants is to frame a public education and outreach initiative targeted to the issue of obesity, using the IDB Social Safety Net project documentation as a reference only. Such an initiative should be designed to be the seed for a very long-term campaign to promote the health of individuals and their communities. As such, the IDB’s line item earmarked for such an effort (i.e., \$250,000) represents a small amount of money just to get started.

The IDB Social Safety Net Reform Programme proposal document and other collateral documents are provided for your information/reference. However, the workshop discussion should not be constrained by these documents or specific programme requirements.

1 — Excerpts from “The Bahamas – Social Safety Net Reform Programme” Loan Proposal document, Inter-American Development Bank.

2 — Excerpts from The Government of The Bahamas, Ministry of Health, www.bahamas.gov.bs/health

Health Workshop—Session 2 Programming A New Clinic For The Family Islands Health—Leadership And Management

“The Ministry of Health seeks to provide the leadership necessary to ensure and guard the protection and promotion of the health of all residents. It provides all residents with access to comprehensive, preventive, quality healthcare services and care.

The Ministry of Health seeks to protect the health of Bahamian residents against both current and emerging health threats. This is achieved, in part, by: helping individuals acquire the skills to live responsible, healthy and independent lives; providing a range of accessible, affordable services that assist individuals, families and communities to reach their full health potential; and monitoring both current and emerging disease threats.

The Ministry operates from a social model of health, whereby improvements in health and well-being are achieved by directing efforts towards addressing the social and environmental determinants of health, among others. The delivery of healthcare in The Bahamas is integrated and coordinated around the needs of residents, rather than service types, professional boundaries or organisational structure.”

The Department of Public Health (operating under the aegis of The Ministry of Health), “manages Community Health Clinics throughout The Bahamas. These clinics all have medical, nursing and allied staff. A tiered system of polyclinics and satellite clinics is linked to more sophisticated tertiary care services at the Princess Margaret Hospital (PMH), and the Rand Memorial Hospital (RMH), on Grand Bahama, through phone consultation and referral services and a system of inter-island transportation. This model is able to extend both routine and emergency healthcare services to even the small and remote islands of our Commonwealth. This is in keeping with Government policy that all residents should have universal access to healthcare and essential social services.”²

The physical facilities for public healthcare services are presently conceived as stand-alone operations, and are not intended to share spaces with other potential uses. While there are compelling reasons for spatial separation for certain types of medical treatment, there is increased interest from the public in having other kinds of social services co-located with community

clinics, as well as questions regarding the potential for clinics to generate collateral social and economic value in their communities.

Workshop Task

The task presented to workshop participants is to discuss needs/demands and potential uses that could be co-located with community health clinics, and to frame arguments why a cluster of specific uses/activities would be preferable and generate more value for the community by being spatially proximate than in separate locations.

Additionally, the discussion should consider potential sources for non-government funding of programme elements not covered by the Ministry of Health.

As a test case, workshop participants are asked to consider the location/setting and programme elements (in addition to the basic programme established by the Ministry of Health to fulfil their mandate) of a new clinic for Black Point in Exuma, as a replacement for the existing facility.

GRANDPARENT
 11 children: farmers + fishers LARI
 Pigeon peas, corn, cassava ya
 Potato, pumpkin, water melon.
 Self-sufficient + sale. Sheep, goat,
 pig, chicken, turkey, cows
 1,000 head of sheep → NASSAU / yr
 Obbichire in AGS.
 Salt beef, salt pig 15.1 (Cassava)
 Rice, Sugar, Canned milk
 Canned milk, Canned butter
 Sweet milk, Sausage,
 SALT AS PRESERVATIVE, COCONUTS
 Home-made blends, candy,
 Fish, Lobster, conch, turtle, Crawl
 Wild game, pigeons, coots, ducks,
 guava, fresh fruit, self-suffice

Typical Diet for Participants' Grandparents

PARENTS PEAS + RICE
(Not just Sams)

NOT MUCH CHANGE
ON FAMILY ISLANDS
G.P. + N.P. IMPORTED FOOD

Urbanization

- ELECTRICITY
- AFFORDABILITY
- ORGANIZATION
(FOOD STORES)
- MOBILITY
- CHANGE IN ECONOMY
- MORE MODERN

Typical Diet for Participants' Parents

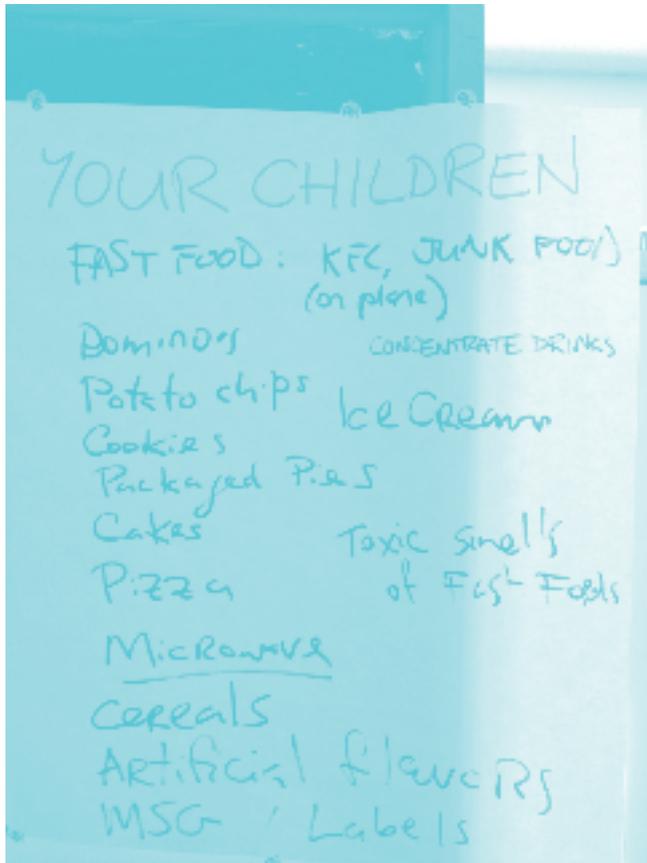
SALTAS
 Home-made blends, cereals,
 Fish, Lobster, conch, tubule, CRea
 Wild game, pigeons, coots, ducks
 Igner, Fresh Fruit, self-suffice

YOURSELF
 IMPORTED, PACKAGED, PROCESSED,
 PASTEURIZED, GMO, FAST
(NO GMO W/EXTRA)

APPLE, PEAR	FOOD
N. AMERICAN FRUITS	PREP
CRACKERS, BISCUITS	
CANOLA / SOYBEAN / OLIVE OIL	STEAM
PASTA	FRIED
TURKEY WING	PROPANE
CEREAL	ELECTRIC
PRAMA-FED ANIMALS	INSTANT
BACON WINE, BEER	
VODKA, RUM	

HEALTH FOOD - IMPORTED
 PEANUTS, SEASHELLS
 CARIBBEAN, KIDNEY BEANS
 SUPPLEMENTS - HEMLOCK FUNGUS

Typical Diet for Participants



Typical Diet for Participants' Children

MSG / La...
YOUR GRANDCHILDREN
People moving towards post
FARMERS market
Vegs. Broccoli, Carrots
Education
Pasta + Hamburgers Helped
No Fast Food in Excess
Health Food Store ^{experience on} ^{Treatment}
No-one under 60 ^{now and then} ^{to eat.}
DESIRE IS THERE

Typical Diet for Participants' Grandchildren



COURSE DESCRIPTIONS

The Walkable City

July 11, 2013 - 9:00am - July 12, 2013 - 5:00pm
Gund Hall, 48 Quincy Street, Cambridge, MA

What makes a place walkable? What do design professionals, engineers, developers, and public officials need to know if they are to make, streets, landscapes, and communities more attractive to pedestrians? Join Jeff Speck, AICP, CNU-A, LEED-AP, Honorary ASLA, author of *Walkable City*, for a comprehensive two-day course on the most effective arguments, techniques, and tools for reshaping places in support of walking, biking, and transit.

The course will be divided into the following segments:

Why Walkability?

While most clients and communities support the concept of walkability as a matter of course, this commitment can waver in the face of countervailing pressures from entrenched interests. Learn the most powerful economic, epidemiological, and environmental arguments for making a sustained investment in walking, biking, and transit.

The Ten Steps of Walkability

The central segment of the course will focus in great depth on the following ten strategies for making better places:

- **Put Cars in Their Place:** Equitable planning around the automobile.
- **Mix the Uses:** Strategies for getting more housing downtown.
- **Get Parking Right:** The wisdom of Donald Shoup.
- **Let Transit Work:** Creating transit riders by choice.
- **Protect the Pedestrian:** All the details that embody the Safe Walk.

- **Welcome Bikes:** Current best practices in cycle networks.
- **Shape the Spaces:** The role of figural space.
- **Plant Trees:** Monetizing the manifold benefits of street trees.
- **Make Friendly and Unique Faces:** Active facades and the role of architects.
- **Pick Your Winners:** Urban Triage as a technique for expanding success.

How to Do a Walkability Plan

The instructors have completed seven Walkability Plans for American municipalities in the past five years. Learn how to complete such plans for your client communities.

Design Charrette

The City of Somerville has been working on the redevelopment of three neighborhoods surrounding new rail stations in the MBTA's planned Green Line expansion. One of these neighborhoods has had its design delayed due to utility issues, but, by July, it will be time to make new proposals. City of Somerville planning staff, led by George Proakis, will join the class for a half-day mini-charrette brainstorming the site.

Dinner Exploration

Off the clock and weather permitting, the class will transit/walk to dinner along some of Boston's most memorable and instructive thoroughfares.

Academic Leader

Jeff Speck, AICP, CNU-A, LEED-AP, Hon. ASLA, Speck & Associates LLC, Washington, DC

Guest Speaker

George Proakis, Director of Planning, City of Somerville, MA

The mail boat leaves our island mostly empty. Sometimes they have empty fuel tanks [to fill and bring back]. Sometimes, if it's the season the boat will leave with fish and crawfish, or some straw work, but most of the time it doesn't go back with too much stuff.

*Sometimes when the mail boat doesn't
get here on time, we can be out of food
for weeks.*

Transformations: Reusing, Renovating, and Expanding Existing Buildings

July 11, 2013 - 9:00am - July 12, 2013 - 5:00pm
Gund Hall, 48 Quincy Street, Cambridge, MA

Renovation and reuse of existing buildings represents an increasingly large part of the design and construction market in the United States, particularly in urban areas. Maintaining historic buildings and neighborhoods can generate tourism and collateral revenues; the character and heritage of other existing buildings can be attractive to many, and a strong incentive for their reuse. Whether serving office, residential, academic, industrial, or other uses, existing buildings can offer significant financial advantages over new construction. And while saving these buildings from demolition maintains our built heritage for future generation, their continued use is a key factor in creating a more environmentally sustainable world.

Hidden building conditions, code interpretations, and additional regulations, however, can pose serious risks for the uninitiated design professional or building owner when working with an existing building. This course is organized for architects, engineers, developers, building owners, or advocates faced with making existing buildings meet today's needs. It is intended to provide a basic introduction to the full spectrum of issues associated with renovation and reuse, and to furnish participants with tools and techniques suitable for both landmarks and less significant structures. Lectures and technical information will be balanced with case studies covering a variety of building types to generate lively discussion between instructors and participants.

Learning Objectives

- Evaluate overall conditions of existing buildings and potential repair strategies;
- Select appropriate design approaches, from restoration to adaptive reuse to expansion;
- Integrate structural and MEP improvements while minimizing their visual impact and cost;
- Assess compliance alternatives for life safety and ADA requirements;

- Identify ways to make existing and historic structures meet sustainable and LEED guidelines;
- Weigh market and design factors that generate profitable reuse projects;
- Interpret and comply with local, state, and national, historic landmark regulations;
- Consider special factors of construction, from hidden conditions and hazardous materials to anticipating specialized materials and trades.

Academic Leaders

Thomas Hotaling, AIA, LEED AP, Principal, Ann Beha Architects, Boston, MA

Matthew Bronski, P.E., Associate Principal, Simpson Gumpertz & Heger Inc., Waltham, MA

Guest Speakers

Lawrence Curtis, President and Managing Partner, Winn Development Company, Boston, MA

Carl Jay, Director of Historic Preservation, Shawmut Construction, Boston, MA

Susan Knack-Brown, P.E., Principal, Simpson Gumpertz & Heger, Waltham, MA

Casey Williams, Simpson Gumpertz & Heger Inc., Waltham, MA

Integrated Project Management

July 18, 2013 - 9:00am - July 19, 2013 - 5:00pm
Gund Hall, 48 Quincy Street, Cambridge, MA

There hasn't been a period in our industry's history where management of one's particular discipline wasn't a core skill for every successful architect, planner, consultant, contractor, or project owner. The contribution of the construction industry in our economy and its role in promoting growth is undisputed. The same stands true for the need to raise standards and improve the construction industry's operating efficiency: projects need to be delivered on time, within budget, at a high quality standard to bring the needed benefit to the environment and society at large. Resource and budgetary constraints, together with innovation in software and technology, demonstrate even more the need for a broader, holistic, effective, and efficient administration and leadership of projects. The need for a comprehensive approach to the management of the project across all of its phases through a timely Integrated Project Management approach is now more essential than ever.

In this two-day program, participants gain an understanding of the basic and more advanced issues, tools, and concepts of an Integrated Project Management approach. Examples are drawn from public and private projects--both at the small, medium, and large scale, at the individual building, and at the mixed-use community development level--both from local and international contexts.

Key topics include the typical project life cycle and its key stages; the various project delivery methods and how to decide which one suits your needs; how to define and manage roles and responsibilities of all entities involved in a project; and effective delivery of all project stages, including feasibility, project implementation plan and strategy, selection of consultants and contractors, the RFP process, responsibilities for pre- and post-schematic phases of design, shop drawings, total project scheduling and budgeting, subcontractor involvement in the design process, value engineering, handling of the general contractor, construction administration, BIM implications and responsibilities, environmental issues, and management of risk and uncertainty.

The program is intended for architects, planners, engineers, contractors, facility managers, project managers, and building owners and developers. Instructors explore these issues through lectures, in-depth case studies of real projects, and skill-building simulations.

Learning Objectives

- **Master key project management principles;**
- **Manage the project life cycle and key project delivery methods (IPD, LEAN, Design Build);**
- **Realize alignment of roles and responsibilities for all players;**
- **Achieve total project scheduling and budgeting;**
- **Establish solid foundations and Select hi-performing teams (pre-qualification, RFP, comparison matrix);**
- **Motivate teams on concept, strategies, tools, and project implementation;**
- **Direct team and sub-team management and leadership;**
- **Recognize risks and uncertainties and master their effective management process.**

Academic Leader

Andreas Georgoulas, Lecturer in Architecture, Harvard University Graduate School of Design, Cambridge, MA

Instructor

Anthony Mason, AMA Project Management, Los Angeles, CA

Accessibility: Compliance, Comparisons, and Communications

July 25, 2013 - 9:00am - July 26, 2013 - 5:00pm
Gund Hall, 48 Quincy Street, Cambridge, MA

Learn about the new ADA facility compliance changes that became effective last year, how to interpret and apply them, and how those new requirements relate to the continuum of accessibility that begins with civil rights laws, progresses through the regulations and standards, harmonizes and conflicts with various building codes, coordinates with customer service, communication efforts, and evacuation planning, incorporates the concepts of Universal Design for everyone, and ends with custom accommodations for specific individuals with disabilities.

The focus of this program will be how architects, interior designers, engineers, landscape architects, and facility managers can incorporate the new changes and concepts into everything they design or manage. Day One will review the new requirements in the 2010 ADA Standards and key facility requirements in the 2010 Regulations. Day Two will delve into applying those new requirements, questions about interpreting them and their fit in the spectrum of other important accessibility standards and regulations affecting U.S. buildings. This year, the program will be adding an extra hour of training on communicating with and accommodating customers with disabilities including emergency evacuation planning. New research on anthropometrics, Universal Design, and best practices will be included throughout both days.

Key topics include

- Major changes and new provisions of the 2010 ADA Standards and regulations;
- Significant differences between the requirements of the ADA and the ICC's A117.1 Standard (most often adopted by local code authorities);
- State changes in accessibility standards to comply with the new ADA (specifics from California, Florida, Illinois, Massachusetts, and Texas);
- Identifying when a facility has to comply with any of the various other federal accessibility standards like: the Architectural Barriers Act;

- The Rehabilitation Act’s Sections 504 and 508 provisions; the Fair Housing Amendments Act; and the Air Carrier Access Act;
- The most significant differences between the facility requirements of the ADA and the ABA;
- Maintenance obligations and limitations under the ADA and practice expectations;
- New Guidelines and Standards expected in the next year or two from the Department of Justice (DOJ), the Department of Transportation (DOT), and the Access Board;
- Impact of the ADA Amendments Act on facility design, management, and operations;
- ADA Safe Harbor exceptions and application to existing facilities and how to identify qualifying “elements;”
- ADA and ABA residential facility requirement overlap with the Fair Housing requirements and related design differences;
- Current status of Universal Design research and the Global Universal Design Standards and possible immediate uses;
- Examples of equivalent facilitation and identification of equivalent design;
- Developing emergency evacuation plans to include the specific needs of people with a broad variety of disabilities;
- Communicating with customers with disabilities;
- Tips on providing exemplary customer service to people with disabilities;
- Significant liabilities from recent ADA cases related to facility compliance and implied lessons;
- Facility and defendant types most often targeted for lawsuits and enforcement actions and likely future changes.

Marsha Mazz spent the last 20 years overseeing the Access Board’s efforts to revise and update the ADA Guidelines to

harmonize with the model codes and will present the changes and additional new requirements in the 2010 ADA Standards. John Wodatch oversaw the development of both the 1991 and the 2010 ADA regulations as the Disability Rights Section Chief at the Department of Justice and will focus on the changes to and interpretation of them. Nationally renowned accessibility consultants Jim Terry and Bill Hecker will moderate the discussion sessions and give detailed and interactive presentations of applying the requirements in practice to fit into the continuum of accessibility. Kevin McGuire will show and explain his new customer service and evacuation planning training programs as well as give a brief demonstration of the new www.AbleRoad.com website and mobile device apps designed to publicize reviews of accessible facilities nationwide.

Instructors will answer many current facility compliance questions about the 2010 ADA requirements, including the most challenging existing facility compliance issues. They will cover the new program accessibility responsibilities for state and local governments and the new areas businesses must consider under the 2010 ADA Standards for readily achievable barrier removal. Instructors will also explain the new concept of “grandfathering” existing accessible elements under the ADA safe harbor provisions. The program includes presentations on the changes applicable under the alterations provisions of the ADA with special emphasis on the 2010 ADA Standards “path of travel” mandate for alterations of primary function areas. The specifics of incorporating the new concept of “supplemental requirements” related to certain recreation and residential facilities and new ADA accessibility provisions for many specific areas will be addressed in detail.

Participants will discuss, question, and debate these key ADA changes and accessibility concepts and will receive an electronic library with copies of the new ADA regulations, new ADA Standards, detailed comparisons of standards, and a digital library of over a hundred research and technical assistance documents and over 1,400 files most often cited by the instructors in their day-to-day consulting practices.

Learning Objectives

- Demonstrate up-to-date skills and knowledge of many details across the continuum of accessibility--from federal accessibility standards compliance through the model building codes, to universal design, and accommodations for specific individuals with disabilities;

- **Conduct a review of specific design changes related to the 2010 ADA standards;**
- **Understand the significant new changes in the 2010 ADA regulations related to existing facilities, alteration projects, and new construction projects;**
- **Recognize some of the most common compliance errors made when designers try to comply with Fair Housing, ADA, and ABA standards;**
- **Understand the fundamental concepts of serving customers with a broad variety of disabilities in retail, dining, and large assembly facilities;**
- **Learn the basic considerations necessary in developing an emergency evacuation plan to include people with disabilities.**

Academic Leaders

Bill Hecker, AIA, Hecker Design, LLC, Birmingham, AL

James Terry, AIA, CASp, LEED AP, CEO, Evan Terry Associates, PC (ETA), Birmingham, AL

Guest Speakers

Marsha Mazz, Director, Office of Technical and Information Services, Washington, DC

Kevin McGuire, Chairman and CEO, McGuire Associates and AbleRoad, Waltham, MA

John Wodatch Esq., Attorney, Washington, DC

Climate Adapted Design: Regions, Infrastructure, and Finance

July 31, 2013 - 9:00am - 5:00pm

Gund Hall, 48 Quincy Street, Cambridge, MA

Superstorm Sandy has made climate change an open topic of discussion on a nonpartisan basis, with full attention of the design industry and also insurance and risk management professionals. Grappling with climate change has moved beyond a theoretical discussion and is beginning to influence more planning and engineering decisions. Learn directly from industry leaders and end users what climate risk means to current and future projects and programs in the face of noteworthy weather events that suggest important trends are taking place, calling into question prior assumptions. For federal projects, recent Executive Orders mandate evaluation of climate change vulnerability and potential mitigation and adaptation measures related to floods, storm surge, extreme weather (wind, hail, tornadoes), drought, wildfire, water shortage, navigable waterway closures, and other potential future scenarios that affect public facilities, general safety, and infrastructure readiness worldwide. Architects, engineers, and other designers typically have never received training and experience addressing climate change issues, and would benefit from understanding how best to lead or support such efforts on a soundly coordinated basis.

The course will introduce basic science, decision frameworks, and technical measures that can support climate adapted design at the community and regional scale. Through case studies, instructors will describe how sustainable design and climate adaptation overlap and also differ. Learn which federal climate, weather, and vulnerability assessments are now underway, and what key information is (and is not) available through NOAA, DOI regional Centers, USGS, FEMA, and other resources. Join interactive discussions on what threats climate change poses to critical infrastructure and how design solutions can address challenges by increasing resilience and reducing risk. Learn where adaptation measures have been used and with what results, including how future potential costs and benefits can be estimated and factored into key decisions. Discuss how future scenarios might affect assumptions and plans about water supply, power consumption and suitability of existing building and infrastructure systems for communities. Linkages between direct impacts from disasters (such as Hurricanes Katrina and Sandy) and regional 2nd and 3rd order effects will be outlined (such as lack of fuel for back-up generators and emergency

vehicles). Typical financial impacts to private and government parties will be explored, including current research and policy information about benefits and costs of various mitigation and risk management approaches including effects on continuity of operations for key facilities.

Learn about trends in risk-based actuarially derived insurance policies, including the decline in public subsidies for premiums in high risk sites and scenarios for risk reduction strategies including public-private partnerships for regional scale infrastructure and insurance provider driven building or facility scale measures. Hear from industry experts how new procedures, credentialing systems, and other institutional changes are dictating change in the A/E industry, posing the question, “Is climate change becoming ‘the next big thing’ in professional design practice and facility asset management?” From the successes in greater New Orleans after Katrina, to the challenges posed by Superstorm Sandy, to routine considerations faced by key decision-makers evaluating future risks and uncertainties, examples will be discussed by those directly involved in understanding problems and shaping solutions. Instructors will share their status updates, obstacles, lessons learned, and future strategies for community and infrastructure resilience.

Learning Objectives

- Identify architecture and engineering solutions that address climate change challenges by increasing resilience and reducing risk in terms of health and safety, as well as property loss and infrastructure operations.
- Know where to access current sources of information about climate change impacts on built environment at the regional scale so you can retrieve it for further use.
- Analyze one case study in order to understand how program management, risk assessment, project delivery methods, stakeholder communication, regional and facility sustainability, and design measures inter-relate for climate change type projects.
- Understand current trends in insurance coverage availability for buildings, pricing, and reporting related to climate change, associated risk, and design measures that can improve insurability in order to better serve future client interests.

Academic Leader
Wendi Goldsmith, CEO, Bioengineering Group, Salem, MA

Instructors
David Carlson, Vice-president and Director of Sustainable
Development, Parsons Corporation, Washington, DC

Edward Thomas Esq., President, Natural Hazard Mitigation
Association, Quincy MA

PARTICIPANTS

Andre Braynen
Lecturer
The College of the Bahamas

Craig Delancy
Buildings Control Officer Ministry of Works and Urban
Development

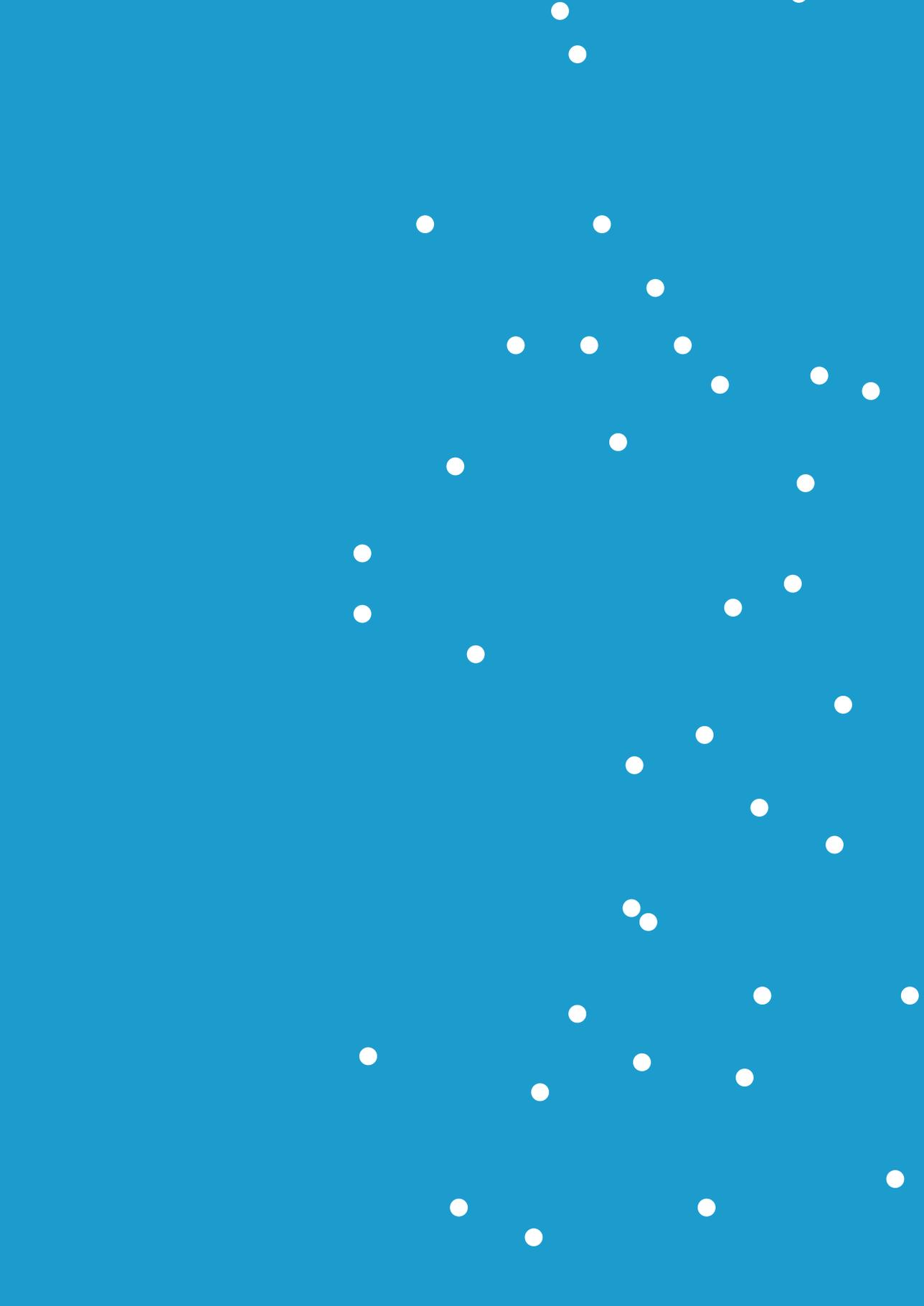
Gustavas Ferguson
Bahamas Institute of Architects

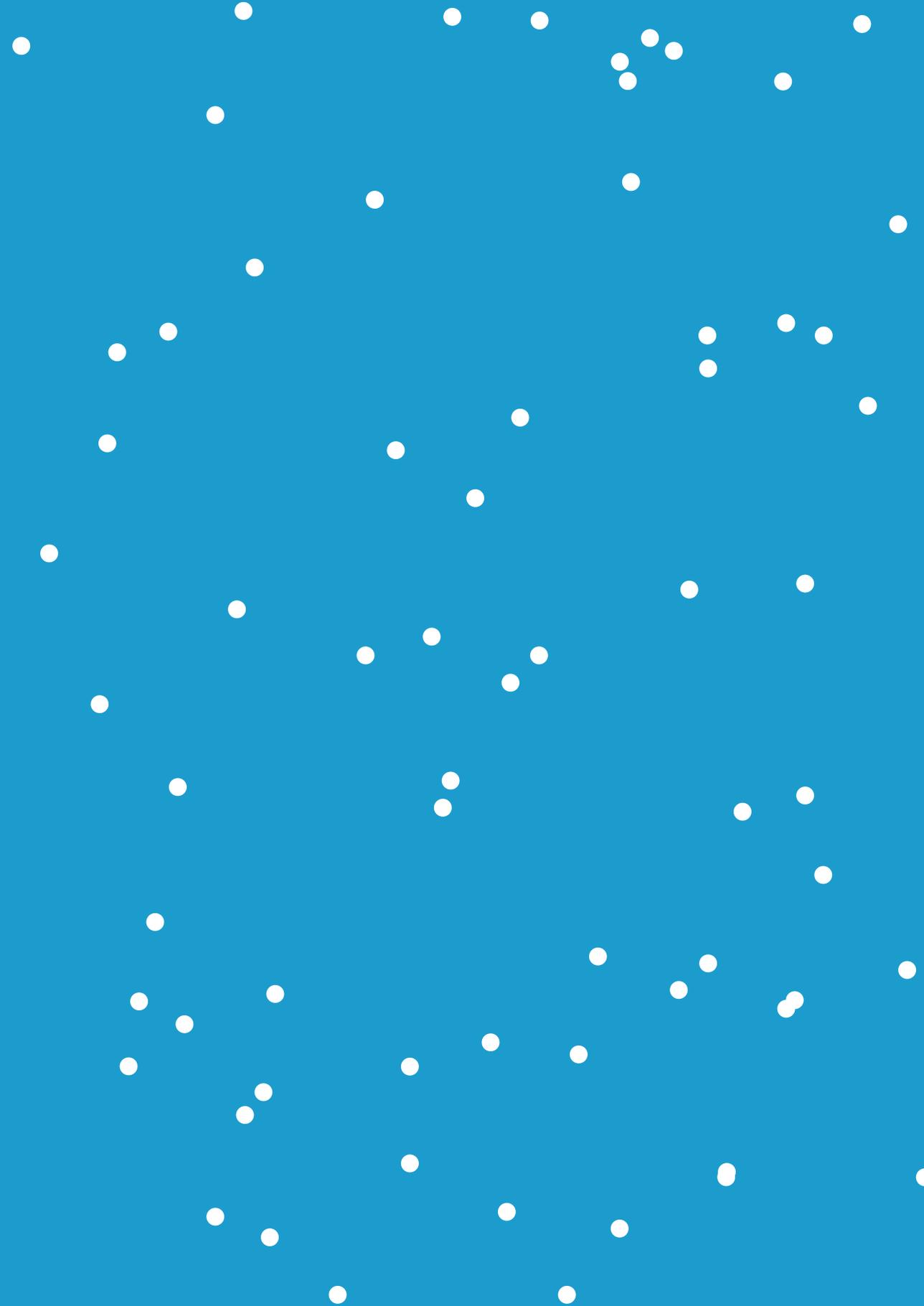
Timothy Johnson
Architect
Ministry of Public Works

David Knowles
Director of Parks Bahamas National Trust

Marcus Laing
The College of the Bahamas

Valaria Pintard-Flax
Lecturer
The College of the Bahamas







VII

Coastlines























































VIII

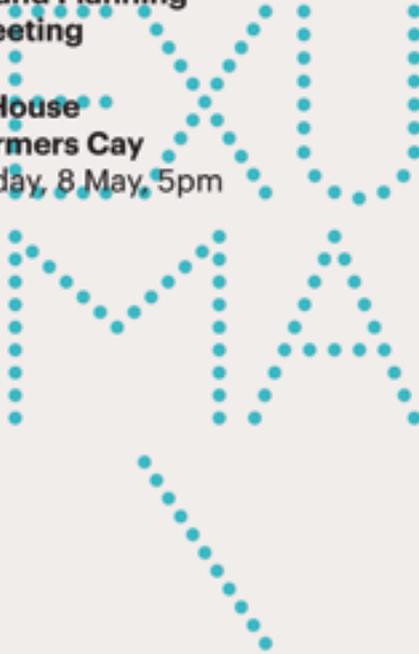
Town Hall Meetings/ May 2013

- ¹ Little Farmer's Cay**
- ² Black Point**
- ³ Staniel Cay**

A SUSTAINABLE FUTURE FOR EXUMA

Environmental Management,
Design, and Planning
Town Meeting

School House
Little Farmers Cay
Wednesday, 8 May, 5pm



The Government of
the Commonwealth of
The Bahamas



Bahamas National Trust



Howard University
Graduate School of Design

Poster for Public Meeting
at Little Farmer's Cay

Little Farmer's Cay

Wednesday 8 May 2013 – Little Farmers Cay Town Meeting –
School House

Setup

There are roughly 14 to 15 people in attendance.

Pastor Bain-Pinder commences with a prayer thanking the Lord for Exuma, land and nature. The Pastor also thanks the people in attendance that travelled near and far to hear us out and participate in our lives.

Brief Introduction

Gareth Doherty (G.D.) lecturer in landscape architecture and urban planning and design at the Harvard Graduate School of Design, provides a brief overview of the three-year project for a sustainable future for Exuma. The first year is about fieldwork and public engagement – essentially to learn about various communal hopes, aspirations and challenges.

If the first year is about information gathering, the second year is about project development, and the third year will focus on implementation.

Another focus includes the design of a clinic and community centre for Black Point.

An important aspect of this project includes scholarships for Bahamians to come to Harvard and participate in career discovery and graduate education.

General Audience Questions and Discussion

Who can apply for scholarships? Anyone? Do they already have to have a degree?

Why is there a clinic in Black Point but not a clinic in Little Farmers Cay?

Is the clinic model a typology or a poly-type? In other words, can the plans for the Black Point Clinic be adapted for Little Farmers Cay?

Paul Nakazawa (P.N.), who is an associate professor in practice of architecture at the Harvard Graduate School of Design states that we need to better understand how to bring things like energy, materials, blocks, codes and skill sets to the local cays so that we can utilise local skilled labourers in the work force.

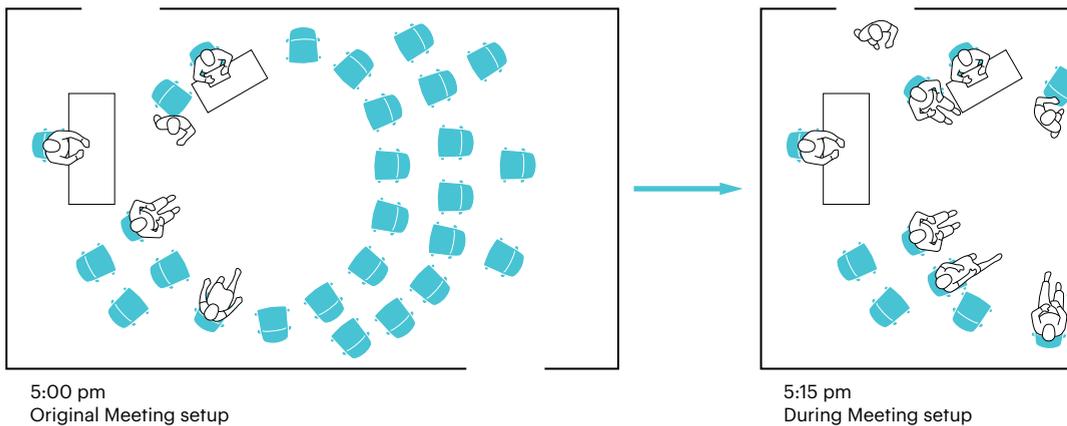
- Man** We need to move out of the Stone Age. There are increasing demands for the tourists and lessening demands for us locals.
- Man** Whatever the Black Point people get and want, we want – we are all Bahamians so we need equal treatment.
- Paul Nakazawa** We are not here as a middleman, representing the government. We are here to learn from all of you so that we can make proposals in a socially, environmentally and economically sustainable way.
- Man** We need the government to help us avoid obstacles such as harbour rocks, or a new dock, or a fixed light pole or a mail post. We need to tell the minister that we need a mail boat.
- Man** We need you to tell the ministers what we told you.
- Woman** Are you doing a survey for a government?
- Paul Nakazawa** We are looking to see what is here and what is happening in The Bahamas and Exuma. We are not representatives of the Bahamian government. We can't work the grain of small problems, like broken docks. During the three years that we are here, we are going to tackle more general issues.
- Woman** At the end of your time what will you have produced?
- Paul Nakazawa** We will have a process and a product. We will have a series of ideas and recommendations. But in order to be successful, we will need to know more about your every day lives, economy, the way you use the land, and typical modes of transportation. These things are spatial and political but we are not here to tell you what you can do. We are here to listen to you tell us what the issues are.
- Man** Given the theory of issues of the whole and the few – we are the few! We need to share the resources, because right now we are getting the short end of the stick. The underlying fact is we need the dock fixed because the supplies can't get here.

- Man** Problem: Dock is broken. Issue: Can't get supplies and we are disconnected. We need basic infrastructure, which includes a provision for the island to function properly.
- Man** Another Issue has to do with airlines – the airstrip is too short. It needs to be extended a few feet with in-fill so that it extends into the sea.
- Paul Nakazawa** How many tourists come here a year?
- Audience** 2,000–3,000 by boat per year. Very few come by air.
- Man** We need to fix the dock for the mail boat. In this day and age, we need the mail boat to function. Right now, in order to get mail, a ferry has to go out and meet the mail boat. This should not be. It impacts the economy and the commerce.
- Paul Nakazawa** How much food do you grow here?
- Woman** Very little to almost nothing. We grow just a bit of pigeon peas, some sweet potatoes and one or two cabbages. Planting is not possible.
- Paul Nakazawa** What is the population of the island?
- Audience** The population is 60-70 people.

Some people got annoyed and leave. There were also a few grumbling men getting upset.

**We need a course on small subsistence farming.
If we had a bit of subsistence farming, fertilisers and
instructions on how to farm, we would be better off.**

- Woman** We need a course on small subsistence farming. If we had a bit of subsistence farming, fertilisers and instructions on how to farm, we would be better off.
- Man** We need some people to teach us about irrigation – we can't farm without irrigation.
- Man** We need a greenhouse!



Man

As soon as we plant something good in the greenhouse, some other people will come and plant bad stuff in there.

Paul Nakazawa

Is there is an adequate piece of land to farm on?

Woman

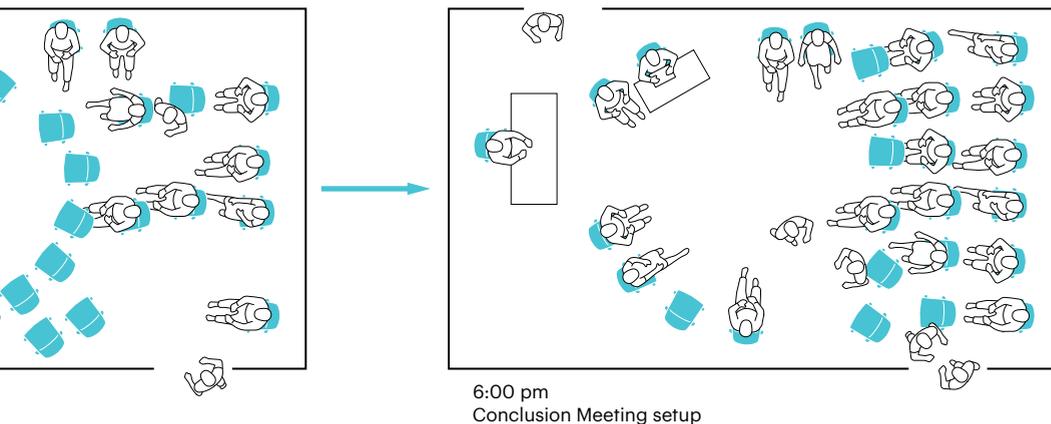
No one here wants to farm. Land and courses are not a problem. People don't want to farm! This is the problem. Very few people want to take the initiative.

Woman

That is not true! Some people want to take the initiative, but the problem is that they don't have the skills or supplies to grow their

The clinic should house stranded people during the hurricane season. Each building has to do more than one thing.

Food security is a big issue because we don't grow much. Older generations had more self-sufficiency and they spent less money.



own feed on the commonage land. Our grandparents did it. But we don't know how.

Man

We don't have the resources of people here to do it.

Man

People here do a little bit of everything. Some people even have government jobs.

Paul Nakazawa

But who here has their own business? There's the yacht club, the marina, and the tourism industry.

Man There is also the restaurant industry, which includes kitchens and bars and the food store.

Woman Shell coconut and crafts.

Woman Convince the storeowner.

Paul Nakazawa The police officer is here! What is your task, Officer?

Police Officer I keep the peace!

Woman We have a nurse and a midwife.

Man We have a couple of fishermen.

Man We have a schoolteacher.

Pastor I am a pastor and child educator. Everyone here has a job, except for two people – a retired person and a young student.

Man We have a janitor for the clinic and the school and people who keep and clean the schoolyard. There is also the person who collects the garbage.

Paul Nakazawa So you are all very busy all of the time then?

Woman No we are not that busy, we are not busy enough to take care of growing our own food.

Woman I don't have free time!

Paul Nakazawa If you had free time, what would you do with it? If you want to create jobs on this island, don't you want to have jobs you like? When you build an economy, ideally you want to build it on something people would like to do.

Woman I don't have enough time. I am actually busy.

Woman With my free time I do some gardening and I help young children.

Man I want some live animals to fence.

Man We have some wild chickens. Chickens are good. They are easy to take care of and they don't take up too much space. Just a house and some grain. Then they give us eggs.

Woman I would like to see a project for backyard farming. Perhaps a course. Even if it were focused on only vegetables, even if they are seasonal, it would help us because we cannot depend on the mail boat.

Man We have fourteen children under 18 years old on the island.

Paul Nakazawa What craft skills do you have on the island?

Man Seven or eight can do carpentry, but very few masons. No one that knows masonry usually stays here.

Man I am a contractor who has built a few apartments by the yacht club.

Paul Nakazawa Where do the young adults go? After the 9th grade, what do they do?

Woman They go to Nassau. There are no jobs here. So they have to go even if they want to stay.

Paul Nakazawa Has much changed since 2007?

Man In 2007, there were more jobs than there are now. They stopped construction in other cays because they have nothing to do.

Paul Nakazawa We had meetings in Nassau and George Town. The central government puts all of the statistics together, yet we do not know how many people have what skills. We have a lump sum number of what skills do exist. We do not know the statistics. It is one of the major issues for us. There is this disconnect, we do not know what people can do. That makes life harder for the locals because we do not know what they do. The government cannot tell you what your skill sets are. But they know who is a government employee. They know who are the nurses and policemen. It is important for a small community to keep track of this basic information, and send it to the government, because you can make proposals and make jobs so you don't import brand-name labels.

Woman I was trained to be a technician for Batelco, the telecommunication company. I used to fix the tower when it broke but now the technology has moved so fast, I can't fix it anymore. So they bring people from Nassau to fix it. Sometimes it takes two to three weeks, with no connection on the island. We have to take a boat out to the sea and get a signal from the next

tower. I need a course to relearn how to fix that tower myself!

- Woman** Specialists in the Bahamas do not wait for the government; the specialists are independent. There are people that do not wait for others to come.
- Man** I am a registered contractor in the government, so they know I am there, and they can contact me.
- Man** The health man needs a better salary. He is the one who keeps the island clean. He takes care of the garbage. It is a health issue if he doesn't. The government moves extra slow.
- Woman** It is cheaper to go to Nassau than to George Town for dental care. The dentist comes two times a year to clean and do preventative care. But sometimes he can't even do that because he has limited equipment.
- Woman** The plane doesn't come enough because they don't fly out of here as much. They will not come here for one person. Flamingo Air only comes when someone needs to leave!
- Woman** I cannot take the boat to Black Point because it is too expensive. It is at least \$400 round trip. You can go to New York for that much money!
It costs \$350 to go to Barratterre, then a taxi is \$80 to Georgetown and \$80 to \$100 to get to Nassau – one way! So imagine the costs for a family of four. We can't move around. If you are in no rush, you can take the mail boat because it takes 3 days. There is no schedule for the mail boat. It arrives irregularly. So that option depends on your luck.
- Woman** It is really scary to get sick or injured on the Family Island. You don't know when the doctor is coming, but you do know when you need him. When the clinic is closed, we come to your house at a scheduled time.
- Woman** I tried to call our Member of Parliament , but we don't know how to contact him! I can't find a way in the phone book.
- Fadi Masoud** So what do you like about living here? What do you value the most?
- Audience** Peace and tranquillity, the beauty of the islands, fresh fish, fresh Conch and fresh food, no violence, no shooting, and our ancestor's homes.

- Woman** It's better when a community is smaller, we can be closer to each other.
- Woman** We need a small course on entrepreneurship at the College of The Bahamas or Bahamas Agricultural and Industrial Corporation (BAIC). We need to request it. Sixteen people are the minimum to take the COB or BAIC class. So unfortunately we don't have enough people.
- Paul Nakazawa** Waste on the island, what do you do with it, do you recycle?
- Audience** We have a garbage pit that we burn things in. Little Farmers Cay has the biggest pit in the cays – we have no problem with garbage!
- Man** In the school and around the community I am working with a cluster programme that is working with the school to collect the recycling plastic and cans and bottles to send to Nassau on a mail boat. The school gets nothing out of it. It just helps the environment and starts the tradition of recycling on the island.
- Man** Most houses have their own individual septic tanks; they are built in soakaways.

Conclusion by Pastor – He thanks the people for attendance and everyone asks for cards from Gareth.

**A SUSTAINABLE FUTURE
FOR EXUMA**
Environmental Management,
Design, and Planning
Town Meeting

**School House
Black Point**
Thursday, 9 May, 5pm



Poster for Public Meeting
at Black Point

Black Point

Thursday 9 May 2013 – Black Point Town Meeting – School House

Setup

5:30 - 6:00 p.m. time discrepancy – many people on time.

Two tourists present, with mostly women in attendance.

The meeting commences with a prayer and a hymn.

About 25 to 30 people are initially in attendance, by around 6:00 p.m. there are closer to 40 people.

Brief Introduction

Gareth Doherty (G.D.) provides a brief overview of the project, including research aspects, governance, resource management, infrastructure, economic development, and socio-cultural issues.

In addition to the research component there is an educational component.

An important aspect of the educational component includes scholarships for Bahamians. There will also be courses on food, economics and health.

This first part of the meeting is centered around collecting information and gathering thoughts.

We have three students here who have been part of the community over the past year or so. You may have met Roger, who did an independent study, as well as Grace and Marissa, who were here this past March.

General Audience Questions and Discussion

Paul Nakazawa (P.N.), Associate Professor in Practice of Architecture at the Harvard Graduate School of Design outlines his role in this project. He discusses the educational aspect of the executive education meetings.

P.N. points out that Executive Education (Exec Ed.) meetings took place in Nassau with ministers. One of the biggest revelations is the disconnect of information between the data that exists in

Exuma and the data that exists in The Bahamas.

Currently, the government piles all of the data together, which generalises and flattens the information, making the reality behind the distribution of facts unclear. Therefore, one of the goals of these meetings is to actually gather information pertaining to the skill levels, issues, and concerns of the people who live in each of these communities.

P.N. notes that since we are not representatives of the government, it is important to note that we are interested in issues not problems. We are not interested with things like “the lights are out on the dock” or “the dock is broken”, but we are interested in looking at each community to see what the totality of these problems are and how we can approach a solution. For instance, if the dock doesn’t function properly, then mail boats and supply boats can’t come in, which then means we are disconnected and isolated. This is the difference between a problem and an issue.

Paul Nakazawa We are not here to hear what the issues are from the ministerial levels, but rather from the local community. We really can’t generalise because the issues are drastically different from one island to the other.

We understand that employment and jobs are an issue, but we need to know what other issues are here as well. What is each community interested in doing? What can they do? We don’t know what the community does in non-government ministerial conditions – are there craftsman? Masons? Plumbers? Chefs? How many of you have your own business? What kinds of business?

Response About six or seven people in the audience own businesses. Types of businesses include a food store, restaurant, and construction company. Other people have government jobs, including the police and the post office. Some people can do carpentry. A couple of other people grow small amounts of food like cabbage and onions.

Paul Nakazawa So is there anyone here who doesn’t have a job? Does everyone have a job?

Response The few people who are not looking to do a job are not here now.

I want to do something but I don't know what I want to do. I am not trained to do certain things but I want to do something.

- Woman** I want to do something but I don't know what I want to do. I am not trained to do certain things but I want to do something.
- Woman** My son is a licensed electrician.
- Paul Nakazawa** Do you guys meet as a community often?
- Response** No, not often.
- Rochelle Newbold** We need to compile a list of what people do and who can do specific things to take with us. We want to compile a list of what skills exists in each island. So that we know how to target future work.
- Paul Nakazawa** We are also here to try to get to the bottom of the economic and health issues as it relates to your food.
Think about 2007. How was then different from now. What has changed in the past five or six years?
- Woman** The population shrunk.
- Woman** Students after grade nine at age thirteen or so leave to go to Nassau for school and they stay there for jobs. They leave and live with family members in Nassau. That has become the process over the years. No more young people stay here.
- Woman** So in the years of guidance, when they need us and need our parental support, they leave and no one can help them or guide them in their important years.
- Woman** And it is against the law to have them not educated and leave them here on the islands to do nothing.
- Contractor** We have no young men, only five to ten men who are skilled, but most young men here are not skilled – then there are men coming from Nassau to take the skilled jobs. This is unique to Exuma, our hands are tied because we have no skilled men.
- Paul Nakazawa** So, if we had a project for \$300,000 as part of a programme, if part of the contract, they must train X amount of men and women to do mason and carpentry to build things, do you think you can

find the skills here in Black Point?

Contractor We would love to do it. People that can do certain jobs like carpentry could train people on the island. We can do it! Training is not always good because you can train these guys and then when there is no work they leave and work on other cays.

Paul Nakazawa How is your diet? Do you fry everything?

Woman We fry our food in vegetable oil, not in pig fat or lard.

Woman But the high-school thing is a big issue because when the children are thirteen years old they can get into trouble on Nassau.

Paul Nakazawa Are there health issues on Black Point?

Woman We would like a doctor on the island. Currently, a doctor only visits every month, not every Monday, and it is not predictable.

Woman The dentist comes maybe once a year. If we need something important, we go to Nassau. It is big money.

Paul Nakazawa Oral hygiene and your feet are very important for health – we must build awareness.

Woman We just want to say, our health is a scary thing on our islands. If someone gets sick and we need to call a plane from Staniel to go to Nassau, it costs \$600.

Woman It is very, very expensive to move between the islands.

Woman Round trip from Black Point to George Town is about \$1,000, so to go to mainland Exuma is \$1,000 round trip. And then we must go to Nassau to do anything. We must leave the island.

Woman The very little money you make you spend. All of it goes to travelling to Nassau – it is very, very expensive to live on islands – electricity, utilities. It takes too much money and too much effort to move from island to island. It is a little bit like jail.

Woman Mostly Canadians and Americans who come to Black Point come on sailboats. Very few fly here. They stay on the island for a couple of days, we don't interact too much. The sailboats get their provisions from the different cays, not so much from Black Point, only very few things.

Woman Getting a hospital in George Town will not benefit us. They are building a big hospital there, but for what?

Woman We want the clinic to be better so that the doctor lives here so that he services the other cays – we want a doctor’s residence.

Paul Nakazawa The doctor needs transportation. Don’t you think?

Woman Doctors do not need to go to Georgetown, they can stay here.

Woman Is this a government plan? Or a private plan? Because the government pays to take the doctor around and they can do that. So why are you worried about his transportation?

Woman Also the nurse needs a vehicle to move here around the island. She walks everywhere.

Paul Nakazawa Is there a community centre? Where do people meet?

Response There is no community centre.

Paul Nakazawa How about the nurse? Is she alone all day?

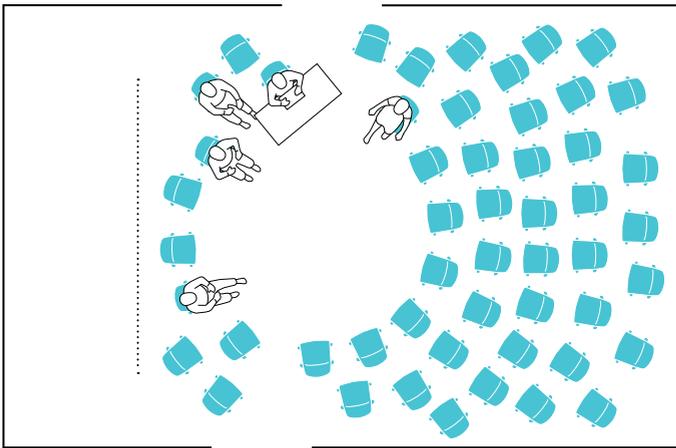
Woman No she isn’t. She is always busy, she is the busiest person here. She is never alone.

Paul Nakazawa How is your connectivity? Cell phones? Internet? Are you well connected? How many of the homes have Internet?

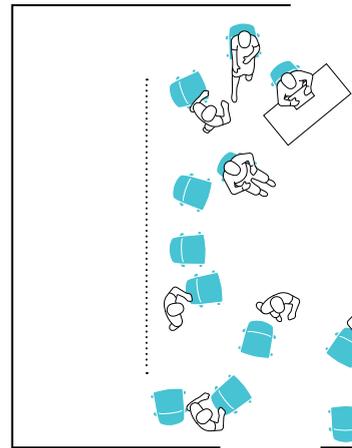
Man 99% of the homes and businesses are connected to the Internet.

Paul Nakazawa Internet here is actually pretty good and works really well, better than in Nassau and Georgetown.
What goes in a clinic other than illness and sickness? What other uses can you place in the clinic? What do your young people do when they visit for the summer when school is not in session?

Audience They go to the basketball court and walk up and down the road. A community centre would be good. A space that could be used by people of different ages, for different things. A community garden? A greenhouse would be better. The school could work as a better clinic. There are substandard conditions in the clinic. We have to fix it first. A community garden for food would be good. Food is expensive.



5:00 pm
Original Meeting setup



5:15 pm
During Meeting setup

Fadi Masoud

What percent of your income goes to food provision?

Audience

All of our money goes towards food. For example, corned beef went from \$14 to \$38 in 5 years.

Paul Nakazawa

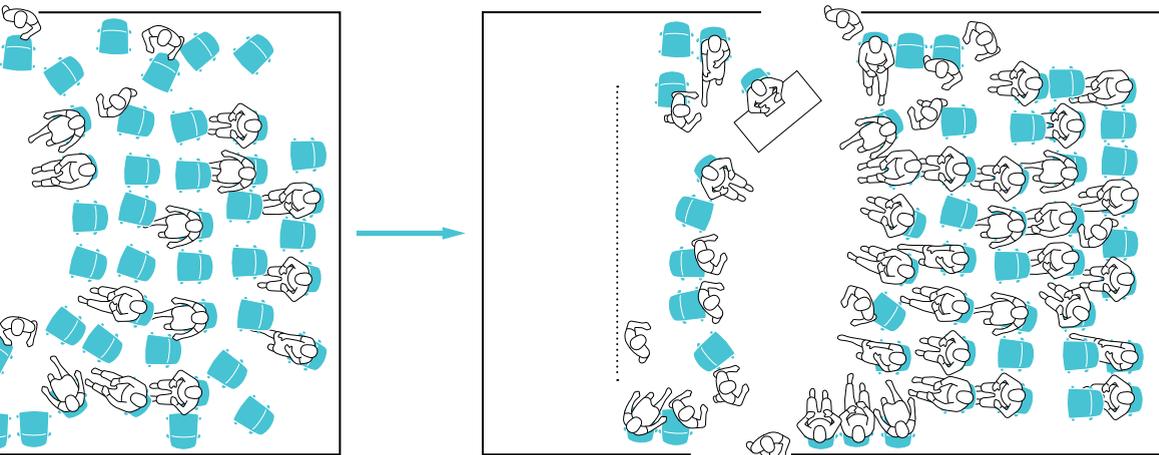
Where do you get your supplies?

Audience

Nassau, on the mail boat – and the mail boat is making a killing on your delivery.

Paul Nakazawa

Why don't you centralise your food orders? Cost per unit goes down when you order more instead of ordering separately.



6:00 pm
Conclusion Meeting setup

Why doesn't the convenience store place one order for the whole Island?

Convenience Store Lady

I would get in trouble because the mail boat would not arrive on time. Then people will yell at me. Sometimes when the mail boat doesn't get here on time, we can be out of food for weeks.

Paul Nakazawa

Is there a way to plan weeks ahead in case the mail boat doesn't come on time? Is there a way to centralise the provisioning?

Audience

If we centralized things, if one mail boat doesn't arrive, the whole

island has no food.

Woman Because of the oil prices, the government sets back the mail boat's arrival to three times a month instead of once every week.

Woman We have the advantage of an extra mail boat that doesn't go to Staniel Cay or Farmers Cay.

Paul Nakazawa Is there a way for you to grow your own food?

Woman No. We don't have time for that.

Old Woman We can grow little things like peas and sweet potatoes. We have all the time.

Woman Most of the people buy their supplies several weeks before they run out so that they let the store restock.

Paul Nakazawa When the mail-boat comes, does it pick up anything on its way back? Or does it go back empty?

Audience YES! Mostly empty. Well sometimes they have empty fuel tanks, in season fish and crawfish, some straw work, a little bit, but not too much stuff.

Paul Nakazawa It is expensive for them to leave empty handed even if they get paid to come anyway.

Woman [To P.N.] Why are you here again? What do you want from us?

Paul Nakazawa We are here to understand your issues and your lifestyles as part of this research project.

Old Woman Food security is a big issue because we don't grow much. Older generations had more self-sufficiency and they spent less money.

Paul Nakazawa These cays could support a limited amount of agriculture, no?

Woman We came to the schoolhouse today because we want to hear what you intend to do with the clinic. So tell us what you will do with this clinic!

Woman There was an agreement; we brought all your garbage here, why do you need to know what I eat? Where I sleep? What I do? You said you would bring a clinic in exchange for your garbage.

Contractor It is not him; it is that woman wearing white. [Pointing at Rochelle.]

The mood in room gets a bit tense. Several people walk out.

Rochelle Newbold There is a bigger project called Sustainable Exuma. This is a different project from the clinic, the broader scope of the project; the clinic is a part of that project and not this project. These people are here from Harvard today to understand the broader umbrella of issues. Because they come from a good design school, they want to help you design and programme the clinic. It is like when you ask someone to build and design your house, they need to answer them like where we want windows and blue paint and a big and small room. So you have to tell the architect what you want the architect to do. Before you draw. It is the same concept. So when the architects come you explain your desires for your house. They are doing the same thing for the clinic.

Woman We need some jobs. We need some things to work with.

Paul Nakazawa As architects, we also need to hear how you behave in your house. What do you like to do in the house, what do you like to do with your family? What is it that you enjoy when you work together?

Woman and Audience Well I will tell you about the clinic if you want to hear. We need a doctor first of all who lives here. The person that lives here is only a nurse, not a doctor and there are things she can't help us with. We don't have a lot of equipment like X-Ray machines. She can't help me figure out my sickness. But, we don't need an X-ray machine. We need a professional doctor.

Woman We need a community centre for people to meet in.

Woman The reason we need a better clinic and a better doctor is because if a big accident happens, how can they help us? It is insurance. And for a serious accident? They can save my life. A nurse can help, but a doctor can save my life.

Woman So what will be good is that instead of the government coming up with a plan of all the things we need, instead of them designing it and giving us things we don't need, it is better if we tell these people what we need. In this way, it becomes all the things we asked for. They build it and it is ours instead of a clinic that doesn't have anything to do with our needs and wants.

Woman We need an area for pre-term babies and a maternity area for babies that can live. Not just the grace of God. We need an

incubator. The nurse is the midwife. The nurse is everything.

Woman

We need a dentist.

Rochelle Newbold

In every age group and every community there are different needs for health. So to have a dentist here is impossible. You know that there isn't even a dentist other than on Nassau. There are only three dentists in Nassau. Why would they come and live here? You need to be realistic. In a place like Andros, they have a tele-conference system with Nassau with Princess Margret Hospital. And inside our clinic we can have a large screen and good Internet and inside both the clinic and the community centre. This way you can use it for training skills, you can use it for tele-surgery. To the older seniors, what are the new techniques for gardening? These things would be in addition to your clinic. A multi-use facility. You need to reaffirm to us what you need from a thing like a multi-use facility that is in addition to the clinic.

Woman

Why are you asking us what the medical clinic needs? How would we know? Does a principal ask her students if they need rulers or pencils?

Audience

No! No! They are saying they will help with other things to pump into the community to take back to the government. They want our needs to sum up and add to the clinic. This is in addition to the medical clinic. How much will you spend?

Paul Nakazawa

We need to know what the needs are. Not the budget. What do you really need, then we figure out what it costs. Then we figure out phases.

Design is not linear. Design works cycles, and it is not a linear process.

Woman

How far are you around the circle?

Paul Nakazawa

Good design is not linear, it is cyclical because over time things change. A clinic will not be designed for just now; it is a building that will be around for the future. And we need to plan for what you need now and what we need is something for five years later. And we need you to go with us in this cycle.

Man

Do you need us to help with the design of the building? Or just the ideas? I think we can do both. For example we need this building for people with wheel chairs; we need a building with a double door. Or an automatic door. We need a building for natural disasters or people who are stranded. It needs to be

accessible. What if someone had a boating accident?

- Man It should house stranded people during the hurricane season. Each building has to do more than one thing. We need to know what do with it. It should be a hurricane centre too.
- Old Woman The clinic and a community centre should be different from one another.
- Man The clinic can be private and secure. And medical records and medicines should be locked.
- Woman We need a pharmacy.
- Old Woman A community centre and a training centre should be separated from the clinic with a wall.
- Woman The church is currently the official hurricane shelter. St. Lukes or sometimes the airport. We need a place where we can have a kitchen and place to cook.
- Woman We need places to cook for funerals and wedding receptions inside the community centre – a large community hall.

Rochelle Newbold decides to start a black board list of things for both the clinic and the community centre. People are chattering alone in little groups.

- Paul Nakazawa Adult education, does it exist?
- Woman Other than Wednesday bible studies? No.
- Audience That could be great! And it could happen in the community centre.
- Contractor It is time to move to a different level. We are in the dark ages. We need education. You want sustainability, but we need education.
- Audience Computers, cooking, masonry, music, arts, this would be great for adult education – College of The Bahamas continuing education programs.
- Woman Can we have a basketball court inside?

Paul Nakazawa Enclosed gyms are not a good idea. This would drive up cost because it would add volume and hurricane pressure lifts. It is not a good idea.

Rochelle Newbold presents the points from the black board of the Community Centre and Clinic and people start to clap.

Rochelle Newbold What else is missing? Access to medical experts in Nassau needs.

Woman A maternity ward.

Woman A morgue or a cooling room.

Rochelle Newbold We need to provision all of your resources. Isn't it cheaper to buy a box of apples? It is cheaper to pool all the fruits and vegetables and buy them at once. You don't get the variety of the fruits and vegetables for the full nutritional benefits.

 To add a community garden is important. You people need to think about how Black Point survives if Nassau is wiped out in a hurricane. What will you do if Nassau is not there? What will you do as a community?

Paul Nakazawa You need a reliable high capacity generator. It is really important that you have a generator in the community centre that connects the clinic and the community centre. I know the current generator doesn't work.

Tourist Its amazing that you are always dependent on the mail boat. I come from a small farming community in the United States and it scares me that you are always dependent to the outside. You need to bring livestock back. You need to eat locally.

Paul Nakazawa Animals that poop are very useful; they generate and regenerate the soil. I know you don't have soil.

Woman The water here is not good for the plants. There is too much chlorine and salt in the water that bleaches the plants.

Rochelle Newbold Your local official is taking care of the chlorine content and that is his mistake. Water quality is sometimes controlled by your community, and it is up to you to monitor it.

Tourist It is good to have a day care pre-school so that the women can work, a room or area that can deal with little children so that the

women can help boost the economy. That space generates money by \$1 or \$2 like Lorraine's Café that has free internet and you give them a donation for the upkeep of the computers. Little by little does a lot.

Rochelle Newbold

Before we leave if you want that money for building things to stay here we need the list of the island's qualified workers. You better put your names on that list. And they have to be professionals. So that they can prove they have the skills to show the ministries. The island's contractors, welders, people who can clear the land, carpenters, and people with skills.

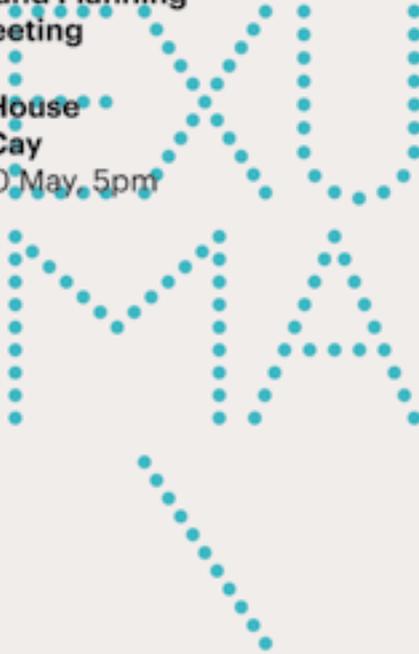
Lady closes with a prayer and a thank you. She also advertises: There will be a walk-a-thon for Mother's Day. Sunday is Mother's Day. We will come back to the park with the community for a fun day with senior moms to make them feel special.

A SUSTAINABLE FUTURE FOR EXUMA

Environmental Management,
Design, and Planning
Town Meeting

School House
Staniel Cay

Friday, 10 May, 5pm



The Government of
the Commonwealth of
The Bahamas



Bahamas National Trust



Howard University
Graduate School of Design

Poster for Public Meeting
at Staniel Cay

Staniel Cay

Friday 10 May 2013 – Staniel Cay Town Meeting – School House

Setup

There are approximately 7 to 8 people in attendance.

Pastor Rolle provides opening prayer.

Brief Introduction

Stephen Miller (S.M.) provides introductions.

Paul Nakazawa (P.N.) is an associate professor in practice of architecture at the Harvard Graduate School of Design.

Paul Nakazawa

Thank you. Gareth Doherty (G.D.), who is taking notes this evening is the co-director of the Sustainable Exuma Project, and was here in March. First, we want to give an update on what we've been up to. We've been looking at the food industry, food security, health, and the economy. We also looked at policy. We spent two days in Georgetown this week, meeting with members of the community and speaking about the same issues but with a more local lens. And then we did a series of community meetings at Little Farmers, Black Point and Staniel Cays.

This is the last of the community meetings over the two weeks. We are struck by the unevenness of development. Unless you go to the local community you don't get the whole picture. The statistics we see are for the country as a whole. Exuma is 2% of the population yet it is a vast territory. When you examine the statistics it doesn't make sense to us. The numbers are skewed.

We need to try to understand what is happening in the communities. The conditions of life in the Cays are quite different than in Nassau. We need to talk to people, and to think about sustainability from a human, economic and environmental standpoint. We have a lab at Harvard where Gareth and a group of researchers and students are working on the project.

General Audience Questions and Discussion

Paul Nakazawa

My job is in one of the educational aspects of the project, looking

at the environment as a sustainable point of view. We have an open agenda this evening. Gareth can explain the overall project and would appreciate feedback from you on what life is like for you.

- Gareth Doherty** We introduced scholarships for degree programmes and career discovery.
- Paul Nakazawa** We're interested in issues rather than problems. A problem might be that you can't get the school fixed and the government is unresponsive.
- Rochelle Newbold** Let me put it like this – imagine Nassau is obliterated as a result of a hurricane. What would be the biggest issue here, without Nassau?
- Stephen Miller** Food would be the big issue. We used to have home gardens on other islands. People would go to other cays.
- Paul Nakazawa** That's the problem with multi-millionaires.
- Woman** That's the problem. For instance, we used to cut the straw tops on an island but the owner doesn't want us to cut them now. It's now a private cay.
- Paul Nakazawa** Are there any animals on this island?
- Stephen Miller** There used to be on another island. We have pigs. Big Majors. They put a pig there and they tried to swim. They run wild. Occasionally they are slaughtered. But they are a tourist attraction and no one wants to see them harmed.
- Paul Nakazawa** A lesson in life.
- Stephen Miller** There are some chickens on the island now. They run around.
- Paul Nakazawa** Are there fishermen?
- Stephen Miller** Mr. Tony Gray is a fisherman.
- Fisherman** The restaurant uses local catches.
- Paul Nakazawa** And do you rely on the mail boat?
- Fisherman** Oh yes!

Paul Nakazawa And do you send anything back on it?

Fisherman Oh yes, things to the family and the like.

Stephen Miller Straw for the straw market?

Paul Nakazawa Is the straw valuable? Do you get a good price?

Pastor Rolle We don't depend on straw, so the development is greater than the other islands. The other islands depend on it. But we've been very fortunate. God has been good to us, in that we can always find something to do, so we can make a living. Straw is not an issue for us, for we have so much development happening, which is good for us. It is better to find work on another island. It is good to find work. Harvard, that's very good for the scholarships, Harvard! Harvard! I can go to Harvard. It will motivate people to go to Harvard. I want to go there.

Paul Nakazawa If more universities were to offer scholarships to people –
 The way you said it, there is also Howard University, which would be good too.
 How many residents are here?

Pastor Rolle There are about 85 permanent residents.

Paul Nakazawa How many high school children (from Staniel Cay) are there in Nassau?

Audience There are about six high school children, definitely less than ten.

Paul Nakazawa How many churches?

Pastor Rolle There is one church.

Paul Nakazawa What is one of the preoccupations of the congregation?

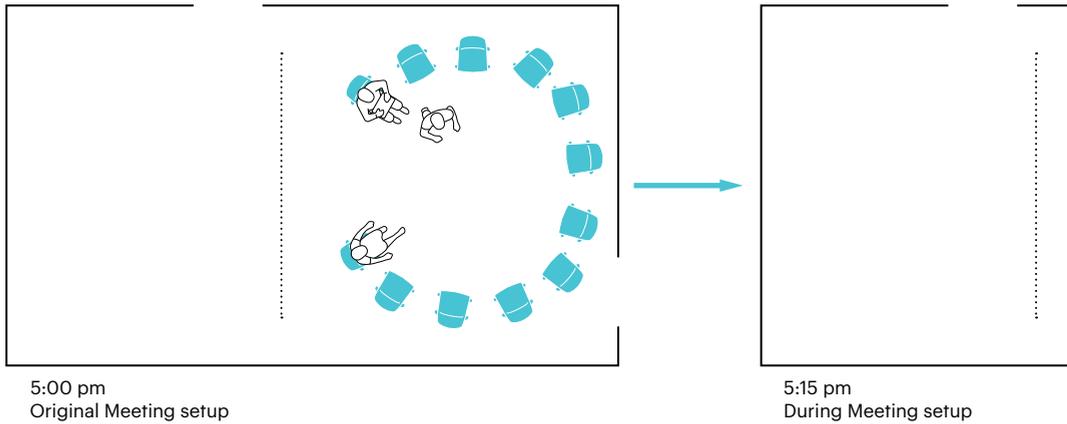
Pastor Rolle Most cook in the yacht club or work as maids. Some are also assistant managers, etc.

Paul Nakazawa The yacht club is important?

Pastor Rolle Yes, it is.

Paul Nakazawa How many people work there?

Pastor Rolle About twenty people work at the yacht club.



Stephen Miller

Do some of the workers come from Black Point?

Paul Nakazawa

Is there indirect employment too? Someone has to buy the fish and buy supplies, right?

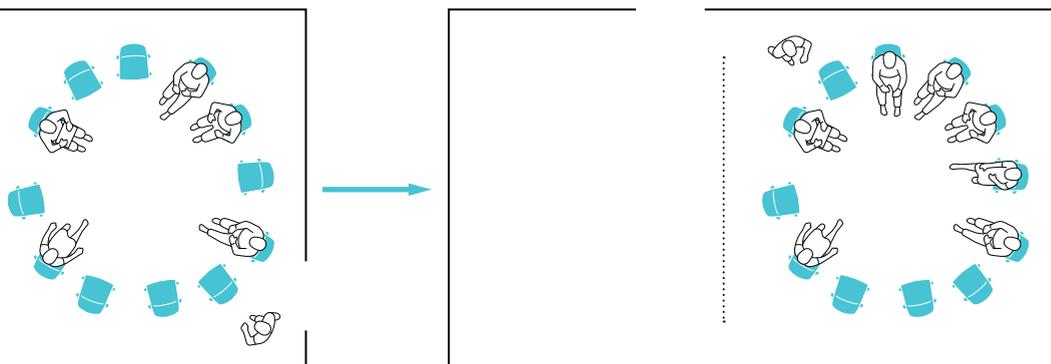
Tourist businesses attract other business.

Rochelle Newbold

What about health?

Stephen Miller

We've been dealing with it since independence. We do have a government nurse. The building that is there now belongs to the community of Staniel Cay. It is funded through fundraisers, who



6:00 pm
Conclusion Meeting setup

raise the money for it and the nurses' residence in the back. There were times when we were left on the island with no healthcare.

Paul Nakazawa

How about dentistry?

Stephen Miller

They have a schedule that the dentist will be here in, say, June.

Paul Nakazawa

Do you have a program of oral hygiene for your kids? Do all of the kids get vaccinated?

Paul Nakazawa	What are the other big issues?
Stephen Miller	The government doesn't want to invest the money to repair the building because it belongs to the community.
Rochelle Newbold	Did you equip the building?
Pastor Rolle	If the government would let us, we would be able to build a community without the government putting in a dime.
Stephen Miller	People wanted to give equipment to the government, but they don't want it.
Paul Nakazawa	That depends on whom they give it to – a community corporation?
Stephen Miller	We still need a government nurse. So people are offered defibrillators.
Paul Nakazawa	Has anyone tried to start an NGO?
Stephen Miller	There was talk about starting a private healthcare system in Exuma but I don't know how far it went.
Fisherman	More than one person had an emergency.
Paul Nakazawa	Is there a helicopter pad?
Fisherman	We had major accidents in 2007, 2009, and 2010. They were all boating accidents.
Stephen Miller	The last serious one resulted in a death.
Fisherman	That clinic doesn't really have the facilities to handle that sort of thing.
Stephen Miller	Electricity service for Staniel Cay comes from Black Point. The standby can only run half the island. So the yacht club is the major employer.
Paul Nakazawa	What do the wealthy people do? Do they have their own generators?
Stephen Miller	Yes. They do.
Paul Nakazawa	Sounds like you need a community corporation. It has to have a board, governance and be transparent. They have to be above

board. No one else has indicated the desire of temporary residents to collaborate.

Stephen Miller

It's a common interest.

Paul Nakazawa

The power cable under the sea is highly unsustainable, if they lose power under the sea, they lose power in their homes and businesses.

Stephen Miller

They carry a load and lose it on the way.

Paul Nakazawa

You take an economy that works and you break it. What do you think of the plans for Leaf Cay?

Stephen Miller

It's too big! It's too big! It's too big! They are trying to put in 50 berths.

Pastor Rolle

It's only 15 acres.

Paul Nakazawa

Are you involved in it?

Stephen Miller

They had no community discussions because the deal is not yet done. They met with local government and officials. Everyone is of the same opinion: it's too big. [Laughter]

Fisherman

It's small.

Paul Nakazawa

They think its Tahiti. They don't get it.

Fisherman

When they dredge, will there be a problem? All the mud will slide down into that creek.

Paul Nakazawa

You will have major silting.

Before the people come in with these projects, the government needs to come and have a meeting with the locals. The developers act like they own the water. The government needs to come to the islands. We can't do a thing because the government won't sign it. Even for a little shack. They need to come in because this is affecting us. There isn't hardly any beach left.

Woman

Before the people come in with these projects, the government

needs to come and have a meeting with the locals. The developers act like they own the water. The government needs to come to the islands. We can't do a thing because the government won't sign it. Even for a little shack. They need to come in because this is affecting us. There isn't hardly any beach left.

Paul Nakazawa

There's no right of passage.

Stephen Miller

The government has provided no easement for the locals to go to the beach after the properties are sold to the developers and then subdivided.

Fisherman

I think one of the problems with the government is that they come and go. When I go to the United States, I talk to people. When they come here they should talk to us. They don't say anything to any of the natives. Then something happens and they talk. For instance, with dredging, they didn't know that there isn't any bone fishing in the creek. But we know what the consequences of the dredging will be. They need to do a study.

Woman

You go fishing here, but this is my private island now.

Paul Nakazawa

But do they know the sea?

Fisherman

They can only tell people who don't know. You own the island but you show me the papers where you bought the water. You can't buy the island and make part of your island a fishery free zone.

Stephen Miller

Even for beach access, the private owners' properties extend to the high water mark, but people don't know and they try to get people out.

G.T.

This happened to me in Abaco some years ago. We went to Treasure Cay and we went to the high water mark. Someone came to me and told me the beach was private. He said, 'This is my property.' I said, 'Your property is up there.' He said he'd get the police, and I said, 'Go ahead.' The police never came.

Paul Nakazawa

Its very important for us, we have no other way of knowing this. We need to know what exactly is the nature of the dispute. How much generational land?

G.T.

About 90 acres

Paul Nakazawa

Is it in one piece?

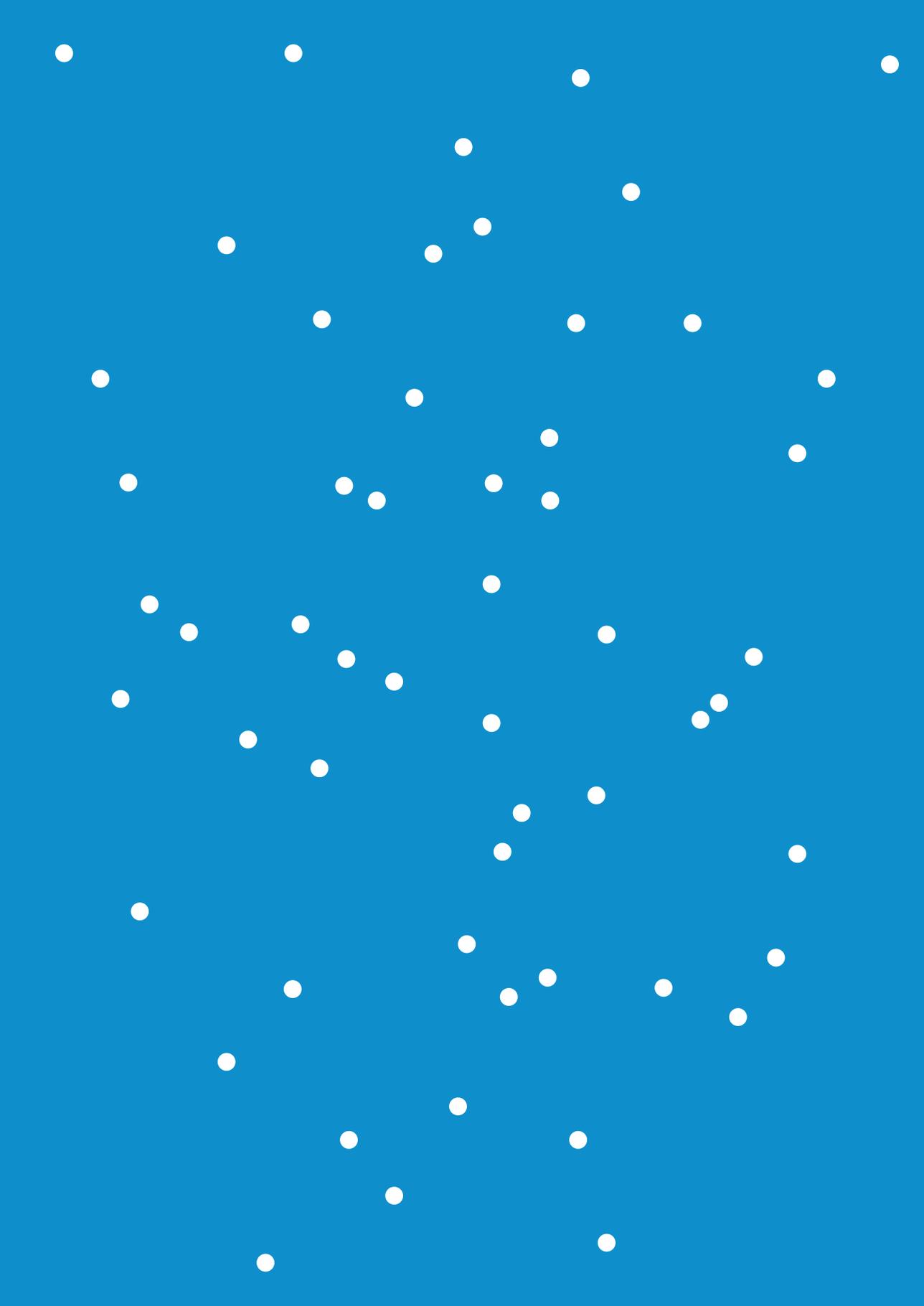
Stephen Miller

It's in one piece, all the way south to the wooden bridge.

Paul Nakazawa

I am afraid we have to go now. Thank you very much for your attention!







Career Discovery Summer 2013/ Harvard GSD

PROGRAM DESCRIPTION

The six-week summer Career Discovery program at the Harvard Graduate School of Design (GSD) welcomes people—from recent high school and college graduates to seasoned professionals—who are grappling with questions like these. And not just people considering a career in design or planning, but people with a broad spectrum of interests and remarkably diverse plans and goals. What they have in common is the drive and desire to seek the answers to those questions.

Participants in our program commit themselves fully to a path of intensive studio work, lectures, workshops, and field trips. Deeply immersed in a culture that is both challenging and rewarding, they experience what education and work are like in the design and planning professions. They emerge—many of them exhilarated—with a more profound understanding of the possibilities ahead and the choices they will make.

Architectures

the design and preservation of individual buildings and the understanding of relationships between buildings

Landscape Architecture

the planning, design, and preservation of built and natural environments, from private gardens and rural landscapes to urban parks and civic infrastructure projects

Urban Planning

the planning for the development, preservation, and enhancement of the built environment at neighborhood, city, and regional scales, including consideration of social, economic, legal, cultural, and other forces

Urban Design

the design of large-scale projects—from mixed-use building complexes, neighborhoods, and cities to urban regions

Open Mind

Design is everywhere, surrounding us wherever we go and influencing cityscapes and landscapes in ways that are material, social, emotional, and spiritual. In the Career Discovery program, students go beyond studio work in order to study the broader, real-world impact of the design and planning professions. With guidance and in-depth instruction from respected faculty members and practitioners, their experiences will help them make the leap from theory to practice, idea to reality.

Faculty

The Career Discovery Director, Jeff Klug, a graduate of the Harvard Graduate School of Design, is a practicing Architect in Boston. Our Lead Faculty are also graduates of the Harvard University Graduate School of Design and/or practitioners in their respective fields. The faculty are assisted in the design studios by instructors who are advanced GSD students or recent graduates. A maximum ratio of 15 students per instructor or lower is maintained.

Career Advising

Career Discovery attracts people who seek to test, confirm, and refine their career goals. For some, the most useful advising focuses on a series of panel discussions emphasizing pragmatic concerns: information about application procedures, admission policies, preparation of a portfolio or résumé, minority concerns, and job interviewing techniques. Another series of workshops is especially designed for older participants making career transitions. Students benefit from additional informal career advice through discussions with career advisors, faculty, and guest speakers about their professional experience, salaries, work schedules, job security, and other aspects of their practice.

Field Trips and Office Visits

First-hand viewings of important examples of architecture, landscape architecture, urban planning, and urban design
Visits to professional firms in the Boston area.

Design Representation

Drawing, computer related lectures and workshops are scheduled throughout the six-week program. Those seeking to learn new skills or enhance their existing skills will benefit from the sessions.

Lectures and Discussions

Career Discovery invites exceptional professionals and academics to give lectures and join career panel discussions on design, history, theory, office practice, and other aspects of each profession. Speakers are often available for informal conversations afterward.



**CAREER DISCOVERY
SCHOLARSHIPS**

Four scholarships will be provided annually for Bahamian college students and others interested in a career in design to participate in the Career Discovery Programme at Harvard University Graduate School of Design.* In 2013 the programme will run between 10th June and 19th July.

Applications for the Career Discovery Programme are due on or before 1st April and need to be made online through the GSD website.

Scholarship applications should be made with the Career Discovery Programme application by submitting an additional essay—of not more than 500 words—detailing how you anticipate your participation in the Career Discovery Programme will benefit you and The Bahamas. Preference will be given to candidates whose participation in the programme is likely to lead to a positive impact on the The Bahamas' built environment.

Questions can be directed to: discovery@gsd.harvard.edu

All decisions regarding scholarships and awards are made solely at the discretion of the GSD in accordance with established policies and procedures.

For more information see the Career Discovery website: www.gsd.harvard.edu/careerdiscovery

* Scholarships include tuition, housing, and return flight from the Bahamian to Boston. Applicants must demonstrate both Bahamian citizenship and residence. The scholarship programme will run between 2012 and 2016.

 Harvard University
Graduate School of Design

Career Discovery Scholarships
Thursday, March 7, 2013, The Nassau Gaurdian

STUDENT PROFILES

Donnell Pinder
Architecture Programme
Pursuing a Bachelor of Science in
Architecture at Florida Agriculture &
Mechanical University
Hometown: Nassau

Jenna Chaplin
Landscape Architecture Programme
Previous Degree: Bachelor of Fine Arts in
Studio Art
Hometown: Nassau

Fendy Pierre
Career Discovery Programme:
Architecture
Studying Architecture at the College of
The Bahamas.
Hometown: Nassau

Christie Chea
Landscape Architecture Programme
Previous Degree: Bachelor of Arts, Urban
Studies
Hometown: Nassau

Michael Wilmore
Urban Design Programme
Current Degree: Architecture
Hometown: Abaco

Brooke Burnside
Career Discovery Programme:
Architecture
Previous Degree: BA in Film from Vassar
College, MA in Media, Culture, and
Communication from New York
University
Hometown: Nassau

Alecia Munnings
Architecture Programme
Previous Degree: Recent High School
Graduate
Hometown: Nassau

Ryan Weech
Architecture Programme
Current Degree: BA in Biology with
Pre-Medicine Concentration
Hometown: Nassau



KIRKLAND MEETING

Thursday, 18 July 2013

- Interviewer So, we just wanted to take a few minutes, as you prepare to go back to the Bahamas, and reflect on the last few weeks. We wanted to take the chance of having you guys all here in one space to ask you a few questions that might inform the larger project on Exuma.
- I just have one general question, and then I think some of the others may have some questions as well. It's a very simple question: what are the main issues for young people in the Bahamas? What are the issues that are on your minds?
- Woman I was going to say crime is an issue. I think about safety as a young person. I think it involves mostly people ages fifteen to twenty-five, so that's a huge one for young people.
- Interviewer Because you're afraid?
- Woman I'm afraid because the vast majority of crimes are committed by youth. Most crime is committed by fifteen to twenty-five-year-olds. There is a lack of things to do. There is a lack of good ways to get involved. There is not a lot of guidance.
- Interviewer Are these crimes drug-related? What kind of crimes?
- Woman Many are gang-related.
- Woman It is a mix. In my neighborhood it's not so much murder. There are a lot of break-ins and petty thefts, but then, its different in other areas.
- Woman 2 In my area its murder.
- Interviewer Is it related to any special condition or something associated with the built environment?
- Woman Its mostly a lack of things to do. In relation to the built environment it is just a general lack of sufficient urban infrastructure, and amenities that provide people within that age group with productive things to do, or productive places to go.
- Woamn 2 In my neighborhood, there is an increase in robbery. Every day, someone was getting robbed. It really started to get more and

more dangerous and more and more out of hand, especially when “Cash for Gold,” a place you can exchange your gold for cash, opened. The crime rate in my neighborhood just increased overnight.

- Interviewer This is an official program? “Cash for Gold”?
- Woman It’s a pawn shop.
- Woman 2 They didn’t have that before in the Bahamas at all, you couldn’t. And now that people can take jewelry and sell it without any background check or anything, people are getting necklaces ripped off their neck in the street on a daily basis. It’s not pleasant. But, how an architect is going to fix that, I’m not sure.
- Woman Education is a huge issue.
- Man Most of the young men drop out of school between grade eight and grade eleven. They cannot really get a good job, so they just start doing crime.
- Woman Another problem is that we don’t recycle. It is, how can I say this ... not clean?
- Woman 2 Not green. [LAUGHS]
- Woman I think that there’s a lack of national pride in the sense that people don’t respect the environment. They will throw garbage anywhere, instead of taking it to the dump. They throw it in the bushes, or in the harbor. It means that you don’t really understand the way that, for example, our coral reefs and water resources are so linked to tourism, which is the basis of our economy. So, not really taking care of that is something that people don’t really recognize as something that needs to be important, and is not. I think it should be a fundamental part of the curriculum from elementary or high school. Because kids are growing up and not really knowing about recycling our compost, or these things about climate change that will really affect us down the line. People aren’t really being made aware of that.
- Woman 2 Yeah. They might be told, but it’s not reinforced to the point that they care. You know? The only things you can recycle are glass bottles, and you have to go to the company and take it yourself. You might get a few cents back, but it’s too much effort for most people.

urban cities major, I would go home and people are like, 'Oh, you would like to come home?' and like, 'Do we have an urban planner?' I'd be like, 'Yeah, that'd be great.' But, if you go home as a young twenty-something, and try to do something, nobody is going to listen. So, the capacity for young people that "do want to go back" and be productive and make a difference, isn't there. And I think there are a number of structural changes that need to somehow be rearranged for the availability to be made there.

- Interviewer Do you see your futures in the Bahamas?
- Woman Hopefully, but not for a few years.
- Woman I don't.
- Woman Not for a few years.
- Woman In your 30s, going into 40s, then yeah.
- Woman Yeah, maybe later.
- Interviewer Do you all agree?
- Woman Yeahhh.
- Woman The country gave me a lot, so I want to go back. I would love to raise a family there, but I don't know if I could live in Nassau, because of the crime.
- Woman 2 I just graduated. I have an older brother who was living at home. He was like, 'Don't come back home, there are like no opportunities.' And my parents were saying, get some work experience in the US for a while, because at least then you have a broader base of knowledge and experiences. This may be totally wrong, but in my opinion, I feel like a lot of people that have recently graduated college want to try and get a little bit more exposure before going home, because if, for example, I wasn't able to get a job in the US, and then went home, it would be very difficult to go out after and come back. Personally, I would like to go home and do something, but it's just a matter of being able to get the knowledge and experience beforehand, to be able to go and be effective.
- Interviewer So, you don't see your short term future in the Bahamas? Will it be in the United States or ... ?

Woman Most likely.

Woman 2 Yeah.

Woman Whatever opportunity presents itself, I'll jump on it.

Woman 2 Yeah, I would love to travel. So I would go to Europe, United States, South America. Basically I'd go anywhere.

Interviewer What about the other countries in the Caribbean?

Woman No [LAUGHS]. I mean, I've been to a lot of them, and they're all probably wonderful, but in terms of opportunities...

Woman It's just kind of like a matter of where the opportunity is. I think that if there were opportunities in the Bahamas, like in Nassau, I would go back but, it's just there's nothing there, and you have to be realistic. It would be great to go back and do something, to be a part of changes that you're hoping are coming up. At the same time people want to be able to do something where they'll grow in some way, and also be able to make money. So, wherever the opportunity is.

Interviewer I don't know if you can answer this question, but how much does the fact that the Bahamas is an island nation impact your perceptions of it? For example, New Providence is a certain size, it's not going to get any bigger; it's going to get denser. But when you go back there I'm sure, it's it hard to avoid people, it's hard to be anonymous.

Woman Oh, absolutely.

Woman 2 Wherever you go, you see someone you know.

Interviewer Does anybody else have anything you want to add, or should we?

Interviewer 2 It seems to me that in your answers there is a sense that the youth is not listened to, somehow. Do you have this sense you do not have a voice?

Interviewer 3 Or, of generational conflict. I think that we've heard this before with some other people we talked to. You guys said a little bit about going back there in your twenties, people don't really want to listen to you.

Woman Yeah, I don't know if it's a generational thing. It might be a

political thing because it's so small and everybody knows each other. If you are not with that party or know somebody there, and you're younger, they might not give you reason to be heard. I'm not saying I couldn't go start a rally. But, I think it also relates to your question about living on an island and being anonymous. It's about politics and having connections and knowing the right people. If you aren't in those circles, it's difficult to - I don't know if this is the right way to phrase it - but to be able to be respected and break into an area, as opposed to people that stick around for a while and know people and are where they are because of their connections.

My older brother graduated a few years before, went home and started working for the Ministry of Foreign Affairs. He was really interested in foreign diplomacy and stuff, and he was really passionate about his work and what he was doing. But, he was getting passed over on opportunities by people that were less knowledgeable about certain areas or less interested just because they had been around for longer, or had known certain people, and had a lot of connections. I think for a young person that goes home and has that drive, and isn't able to reach their full potential because of these structural or political things it's disheartening. So, now my brother just wants to leave, and go back, and I feel that happens to people, and that causes them to lose interest in trying to stick around and make a name for themselves.

- Interviewer What is your perception of the Caribbean?
- Woman Jamaicans and Bahamians have a lot in common. And they get along well. And Bermuda, I know a lot of people from Bermuda. And they're really similar to Bahamians, very similar.
- Woman Yeah, Bahamians have a bad perception of Haitians, if you ask, but I don't know. Personally, I don't really think of a very strong perception of other islands in the Caribbean.
- Interviewer So, then, in summary, the main issues would include: crime, the lack of things to do, the lack of places to go. What else?
- Woman Job opportunities. Waste.
- Interviewer Job opportunities, waste. What else?
- Woman Linked to things to do and places to go, and it's probably not a problem that's exclusive to young people, but I think to Bahamians in general, because the main industry is tourism, if

you mention the beach, there are a dwindling number of beaches that are publicly accessible because hotels will buy property and Bahamians then can't access it. I think that relates to feelings of national pride and ownership. You have all of these resources that could be available at your disposal, but if you don't have access to the beach, you can't go to the ocean, so the connection between you know, this is our island, these are our waters, we need to take care of it ... That's not a connection that's made as readily as it could be.

Man But aren't all beaches supposed to be accessible?

Woman Supposed to.

Woman 2 Yeah, nobody could own a beach. Nobody should stop you, but then, people still stop you, They put little buoys in the water, which gives them boundaries.

Man Yeah, like you said, no one could own the beach. You can, once you get onto the beach, but if you own a piece of property that's accessible to the beach, then it could prevent you from getting a hotel.

Man Yeah, there is some resistance, inside of the places to get into the beach.

Woman It's such a hassle to get to the beach area that you just don't go.

Man Yeah, and we find this true in Nassau, but then when you get to the Family Islands, it's totally different. Swimming on the Family Island, that's second nature. Swimming is a part of growing up, but for somebody who's living in Nassau, it might be a little different, because the sea life is not your life. You grow up on the islands, outside of Nassau, every day, almost every opportunity, I'd be on the water. Unlike, Nassau. Nassau it's a city life, and so you find average young person that does not access water like that.

Woman Which is so strange on a small, tiny island. So strange.

Woman 2 And it'll take me five minutes to get to the beach. But, I just don't go, unless it's a holiday or I'm going to my friends' house that live close to the beach. But, just to say, 'Oh, let me just go to the beach one day,' I wouldn't do it.

Woman Before I went away to school, I went to the beach maybe three

times a year. I hardly ever went to the beach.

Interviewer 4

What is the overall atmosphere in schools in terms of opportunities. Do the people who have higher degrees more easily get good jobs?

Woman

I don't know the answer to that. I always grew up on this saying, it's "it's not what you know, it's who you know". So, sometimes you could have a straight 'A' student and a straight 'C' student, but if that 'C' student has connections in a certain company, they will get the job over you. That's what discourages a lot of people.

Woman

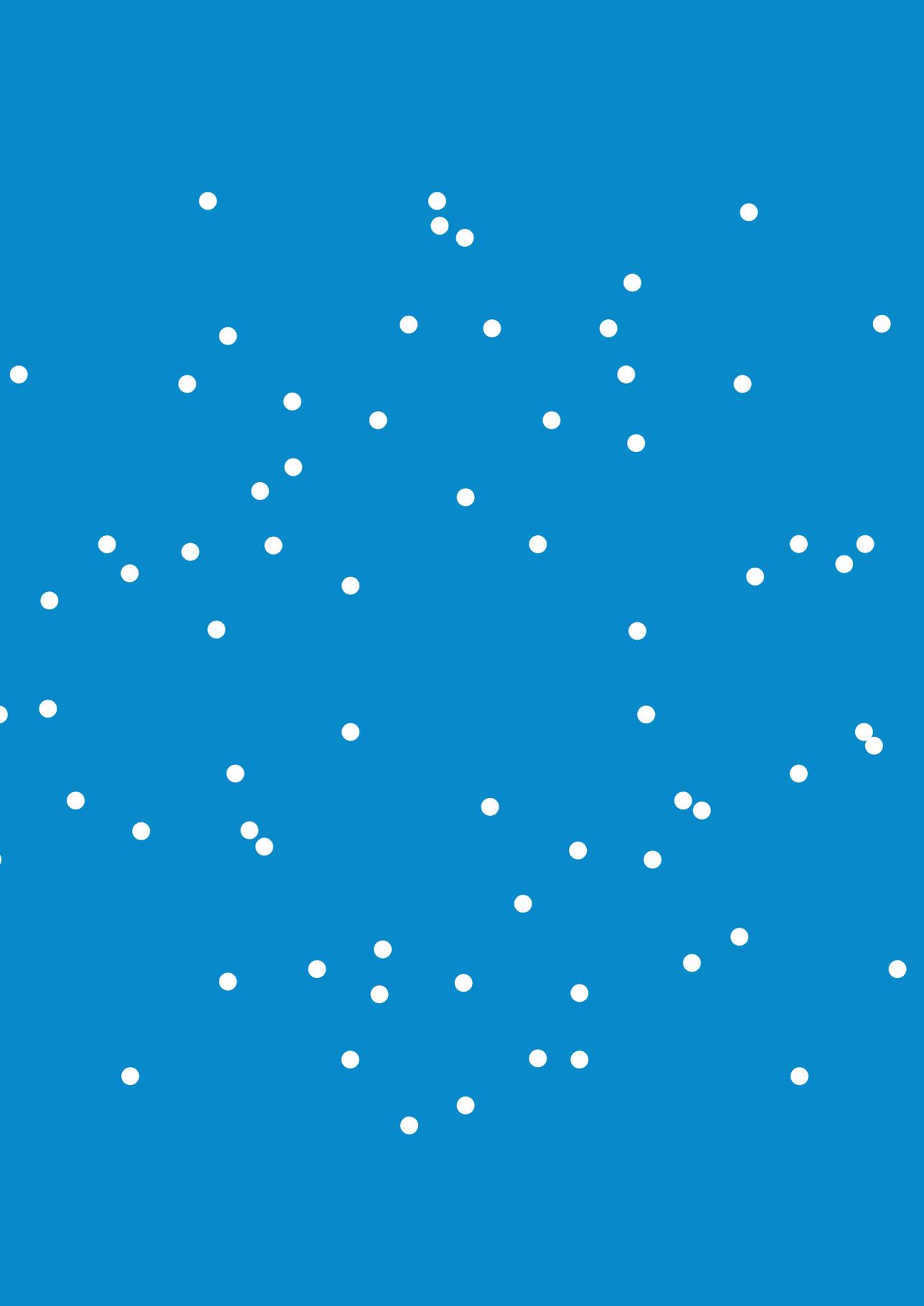
I don't know if it's that they don't value a degree, but I think in terms of job opportunities, in terms of the economy, it's not diverse enough for people with certain skill sets to be able to go back home and do something. I studied urban cities, and I just did landscape architecture, but you would go home and, -I don't know maybe I just haven't looked hard enough for certain opportunities- but when I was looking for jobs and applying for them, they were very limited in terms of their scope. So, to a certain extent if you didn't have the drive to go to college and do something, you could get probably a perfectly fine job doing something, but maybe not.

Interviewer

Is there anything anybody else wants to add?

Thank you all very much. I think there's still some food and drinks outside. Let's keep in touch, we would like to keep in touch with you for sure. Thank you very much. Congratulations.







The government provides no easement for the locals to go to the beach after the properties are sold to the developers and then subdivided. In fact, we used to cut the straw tops on the island but the owner doesn't want us to cut them now. It's now considered a private cay.

As a tourist, it amazes me that you are always dependent on the mail boat. I come from a small farming community in the United States and the dependency on the outside scares me. You need to bring livestock back. You need to eat more locally.

X

Exuma Maps

Agriculture

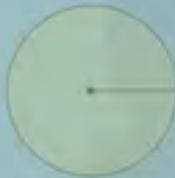
The Bahamas is a flat coastal state, situated on large depositional platforms composed mainly of carbonate sediments, ringed by reefs and formed primarily from the skeletal remains of organisms compacted on the sea floor. Over geological time, these sediments consolidated to form carbonate sedimentary rocks such as limestone. Current agricultural practices exhaust the thin and fragile layer of soil sitting atop this limestone base. Although local food production accounts for only 1.4% of the country's GDP, it represents an important role in completing the local diet, especially considering the relatively high price for food, the lower-income households, and the associated health issues related to inadequate nutrition and obesity. More than 90% of the nation's food products are imported and the inter-island transport of food from the capital results in added cost increases. The food distribution system is highly structured and controlled by a few distributors who, along with imposed import tariffs, regulate the pricing of food items. The Bahamian diet became radically polarised with the introduction of packaged foods and chain restaurants. A diet of high protein and fresh high-starch fibre elements was compounded with sugar, fat and salt, offering little to no nutritional value and resulting in chronic illnesses within the community.



Exuma Maps: Agriculture

Abaco

- Banana Palm Groves — leases 1,200 acres sugar estate.
- The Abaco Cooperative Society — allocated 1,000 acres for its members, each uses 20 acres.
- Exuma Isle — 3,000-acre citrus orchard in Abaco.



total farmland (in hectares)
government owned farmland

24,984 ha
gov. 4,749 ha

Mainly Pineapples
Present Day

Kendall Foods
Operates Fagan's Orchards

2,024 ha

Mainly Pineapples
Present Day

2,000 ha

Sisal
Historic

South-western and Central Coopers Islands are known for subsistence, cut and burn farming.

809 ha

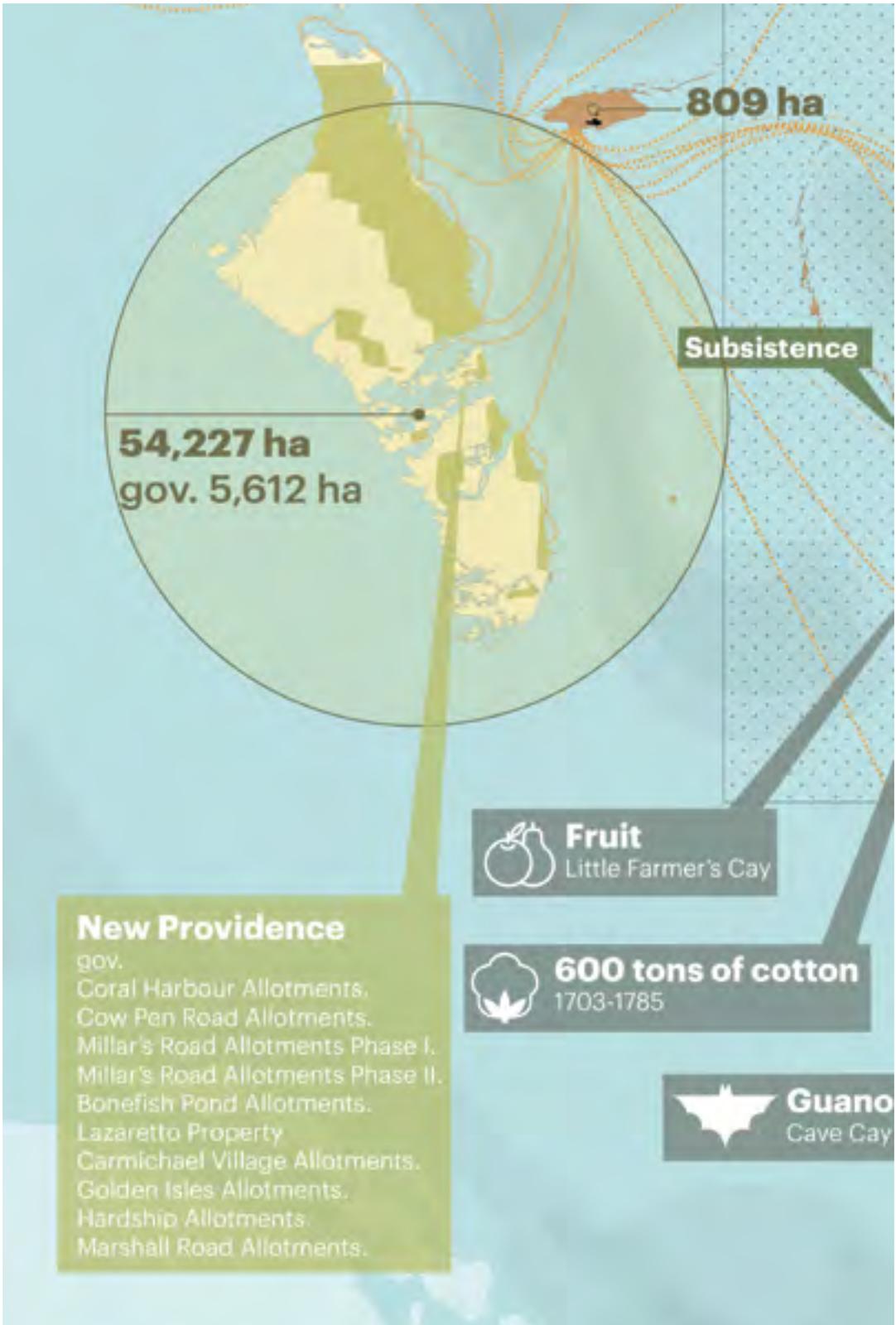
2,428 ha

2-3,000 acres cotton
1783

Sisal
Ballist City

4,000 acres cotton
1783

no Supply
City



Case studies

In developing a sustainable and resilient plan for an island territory such as Exuma, it is important for us to be aware of the other initiatives islands across the globe are devising to engage similar challenges. Islands are facing enormous pressure from many factors ranging from developmental activities to climate change. To understand these factors requires us to critically analyse the flows and patterns of materials, resources, people and places. This initial set of case studies provides insight into the challenges other islands are facing and the programmes they are implementing to address them. These case studies also provide a blueprint for evaluating the dynamic nature of internal processes and their connections to larger geophysical and socio-political transformations.



Exuma Maps: Case studies



ne

● **Caribbean**

Understanding economic, governance, cultural, and resource regional networks

● **Galapagos**

Land use planning and control strategies for a balance between biodiversity protection and urban development

● **Island**

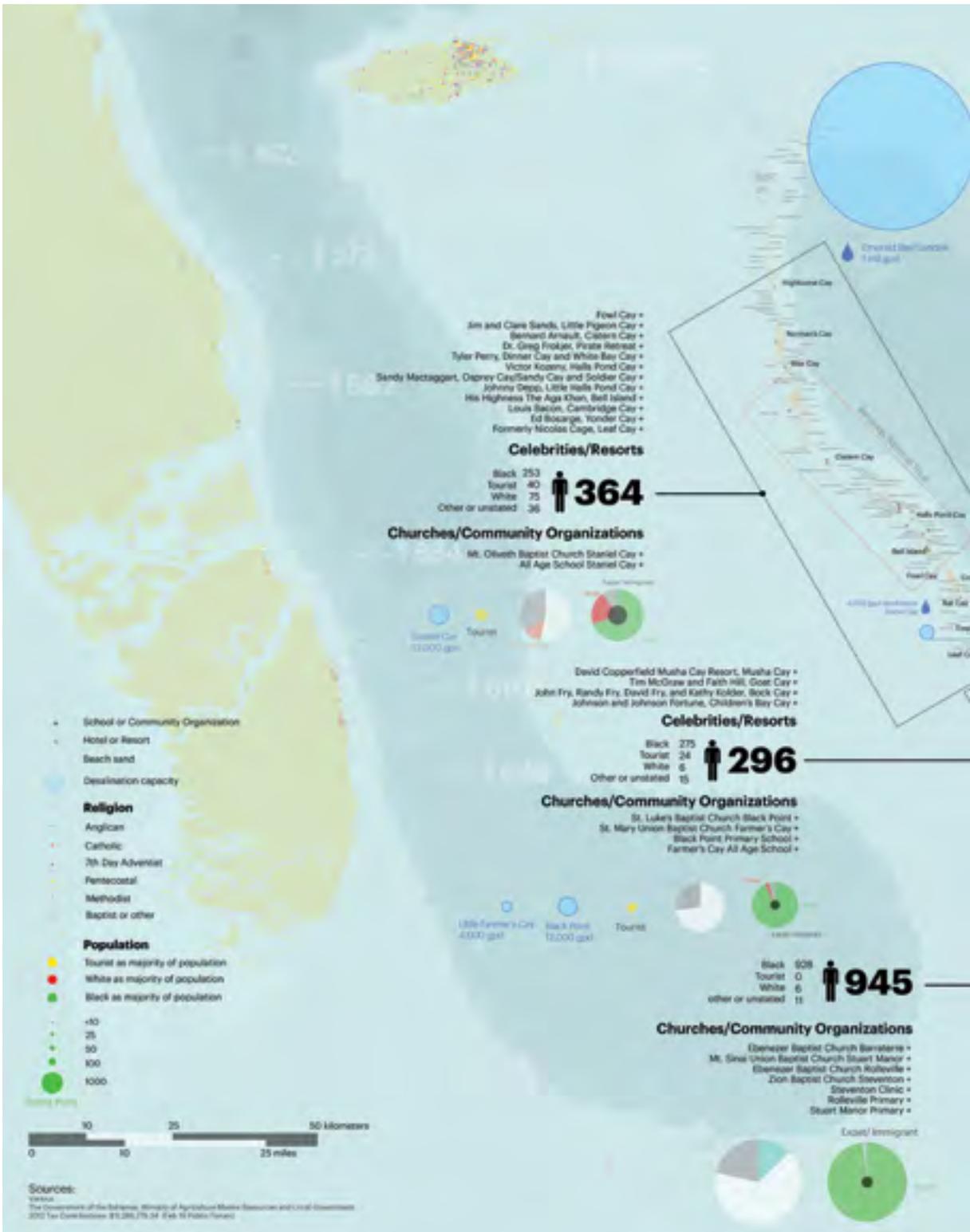
of the ancient natural along a program for big urban development

● **Chile**

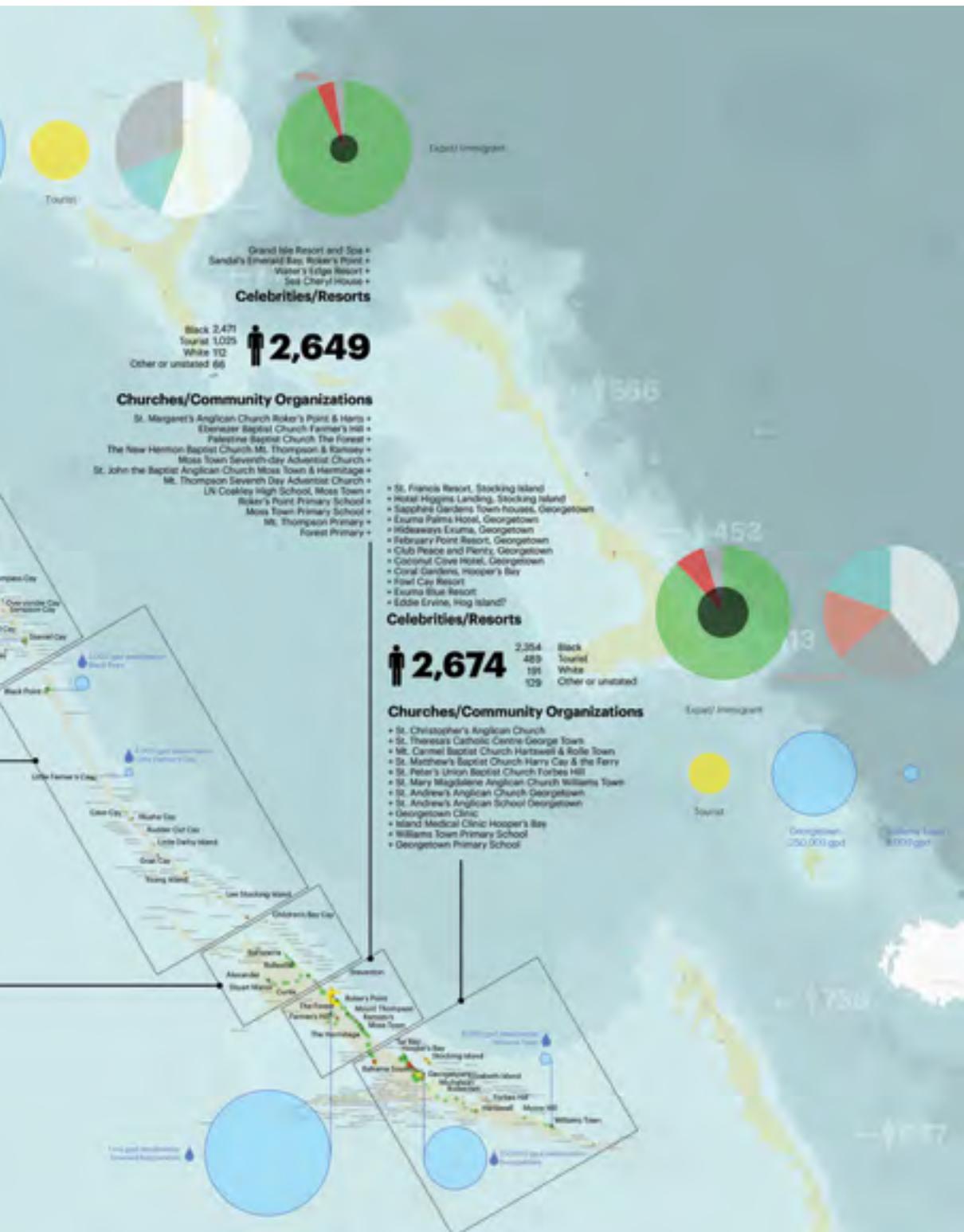
Urban mobility and agriculture practices based in community collaborative rites

Constituencies for Engagement

The constituencies in The Bahamas may be officially understood in administrative terms. The Bahamas is organised into two spheres of government—the central government and the thirtytwo local governments—with administrators, councillors and town committees that oversee the affairs of their own districts. The fieldwork shows that these political structures are unofficially shaped by other social factors, including residential status, race, religious affiliations, land heritage and access to resources. Moreover, geological features such as the sea, the land, the soil and climate conditions, among others, are also agents that actively shape the organisation of life in the islands. By studying the overlapping areas where political organisation, geographic location, or even biological differentiations occur, we can better identify concerns, and discover the constituencies of commoninterest that will enable us to move forward with a more contextual agenda.



Exuma Maps: Constituencies for Engagement



Fowl Cay +
 Jim and Clare Sands, Little Pigeon Cay +
 Bernard Arnault, Cistern Cay +
 Dr. Greg Frokjer, Pirate Retreat +
 Tyler Perry, Dinner Cay and White Bay Cay +
 Victor Kozeny, Halls Pond Cay +
 Sandy Mactaggart, Osprey Cay/Sandy Cay and Soldier Cay +
 Johnny Depp, Little Halls Pond Cay +
 His Highness The Aga Khan, Bell Island +
 Louis Bacon, Cambridge Cay +
 Ed Bosarge, Yonder Cay +
 Formerly Nicolas Cage, Leaf Cay +

Celebrities/Resorts

Black	253
Tourist	40
White	75
Other or unstated	36



Churches/Community Organizations

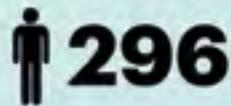
Mt. Oliveth Baptist Church Staniel Cay +
 All Age School Staniel Cay +



David Copperfield Musha Cay Resort, Musha Cay +
 Tim McGraw and Faith Hill, Goat Cay +
 John Fry, Randy Fry, David Fry, and Kathy Kolder, Bock Cay +
 Johnson and Johnson Fortune, Children's Bay Cay +

Celebrities/Resorts

Black	275
Tourist	24
White	6
Other or unstated	15

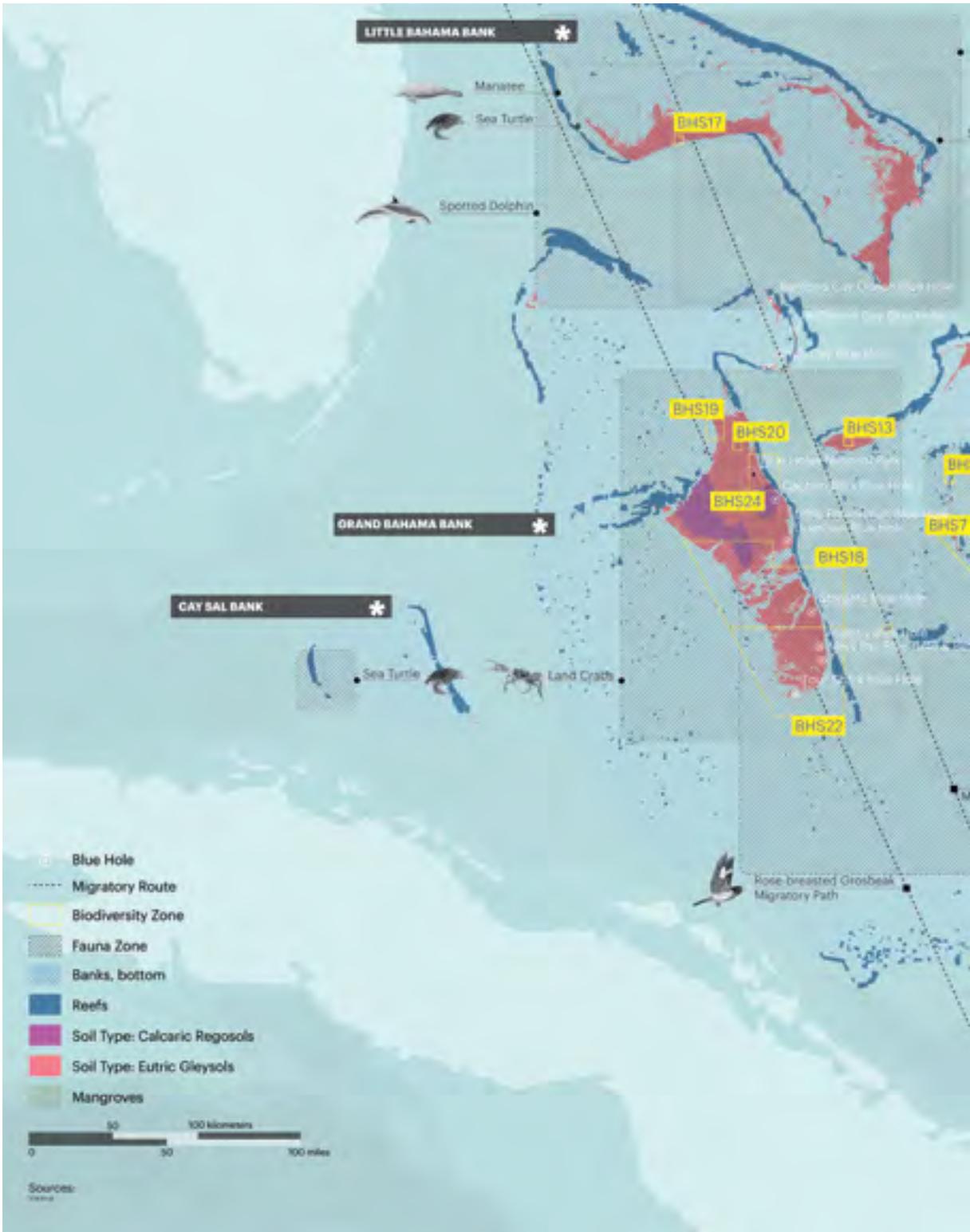


Churches/Community Organizations

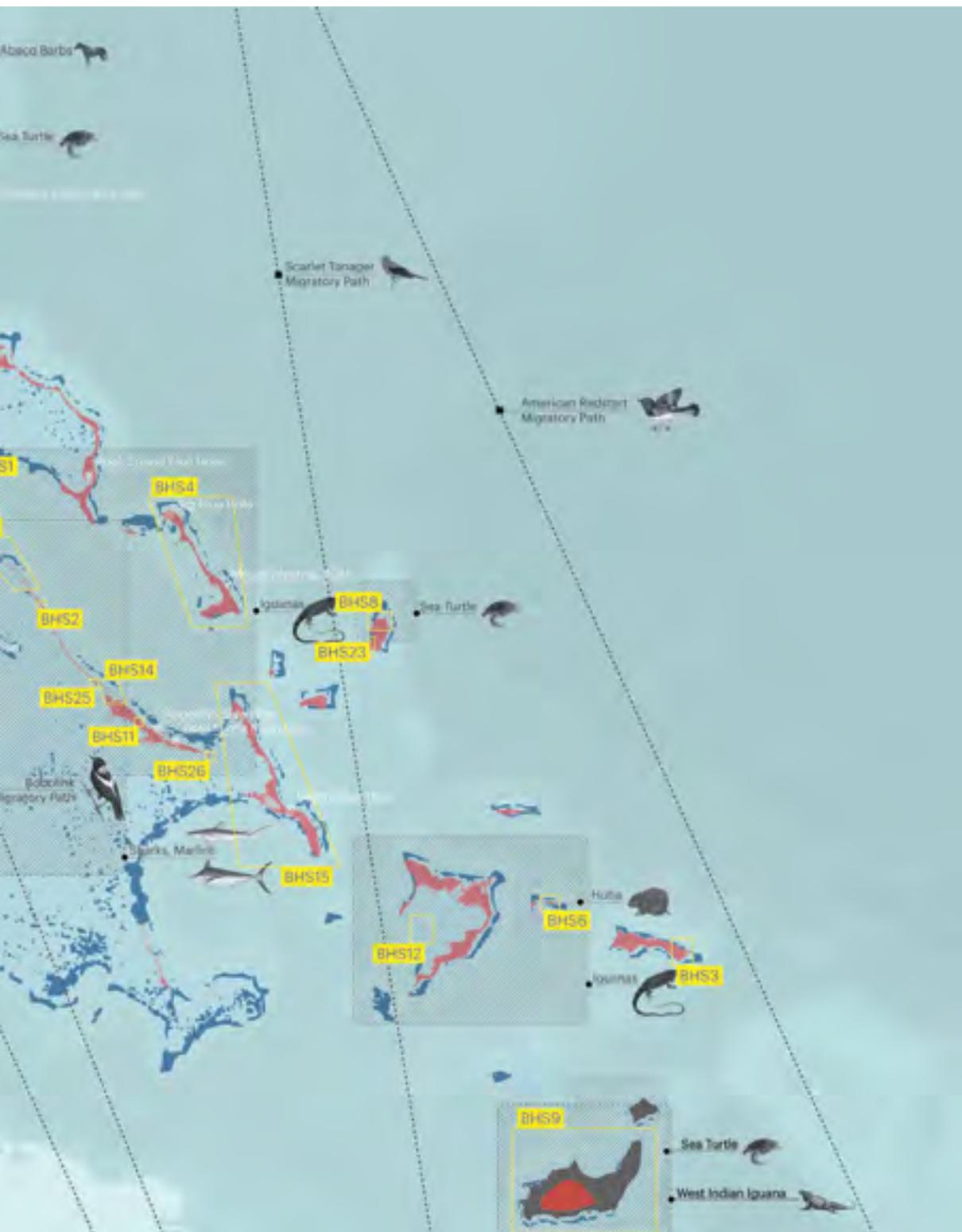
St. Luke's Baptist Church Black Point +
 St. Mary Union Baptist Church Farmer's Cay +
 Black Point Primary School +
 Farmer's Cay All Age School +

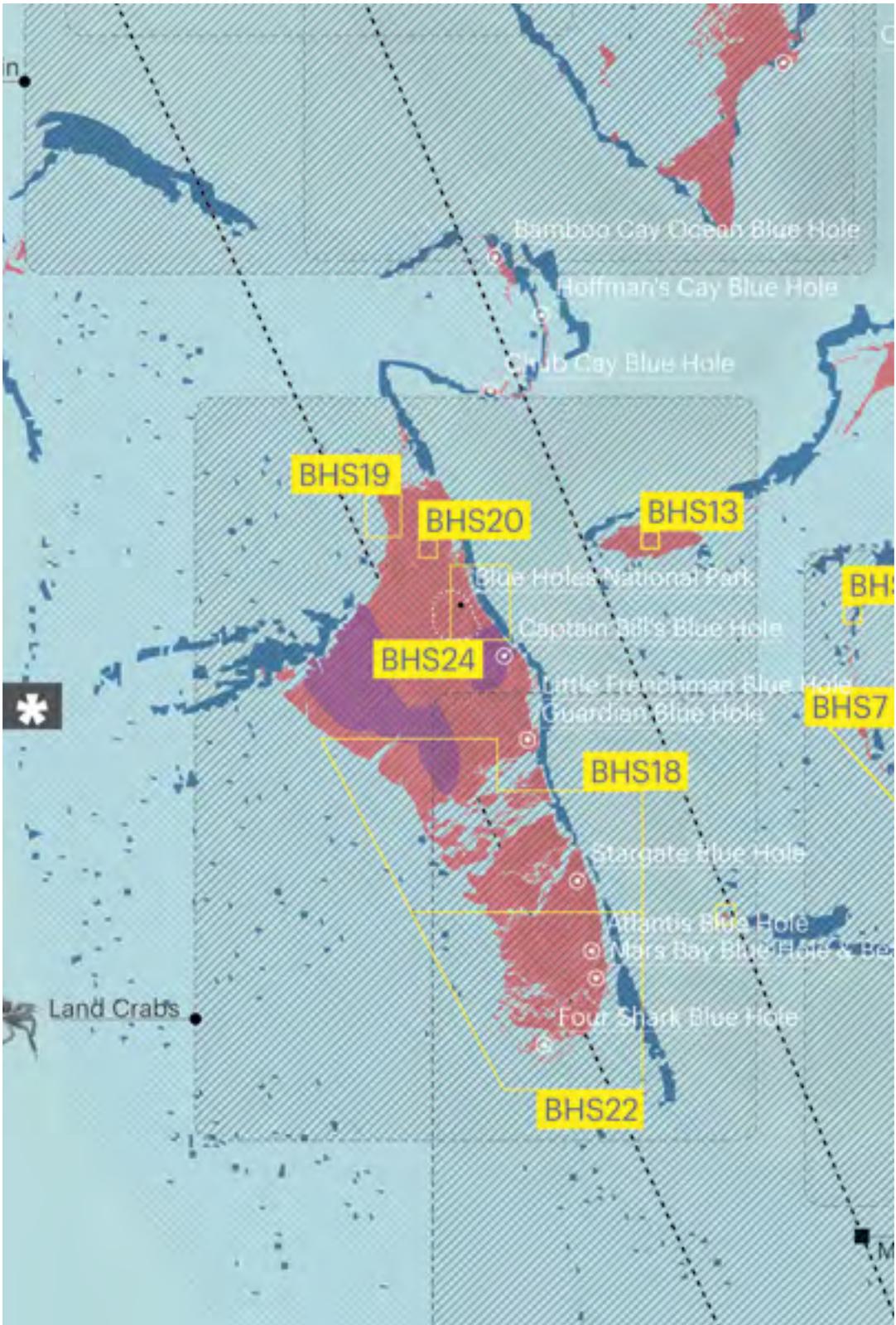
Island Geology and Ecologies

Consisting of more than 700 largely flat islands that project out from the three Bahama Banks, The Bahamas sits on a limestone base formed by millions of years of continuous compaction of coral reefs and seashells. On the land, only a thin, weak layer of soil covers the thick limestone base. In rough areas under the sea, the limestone is covered only by coral reefs. Reef and soil conditions determine the rich sea life and particular flora of Exuma, which subsequently influenced the economic history and livelihoods such as wrecking, fishing and farming. Soil conditions also led to the cotton failure, which was associated with popular traditions such as bush medicine, a unique facet of Bahamian culture. The Bahamas contains a large variety of ecosystems, including beaches, lagoons, sea-grass meadows, mangroves, coral reefs and forests that provide habitats to myriad of flora and fauna, most of which cannot be found in other parts of the Caribbean. The isolation of The Bahamas has made its ecosystems particularly interdependent, sensitive and vulnerable to disruption and foreign invasion.



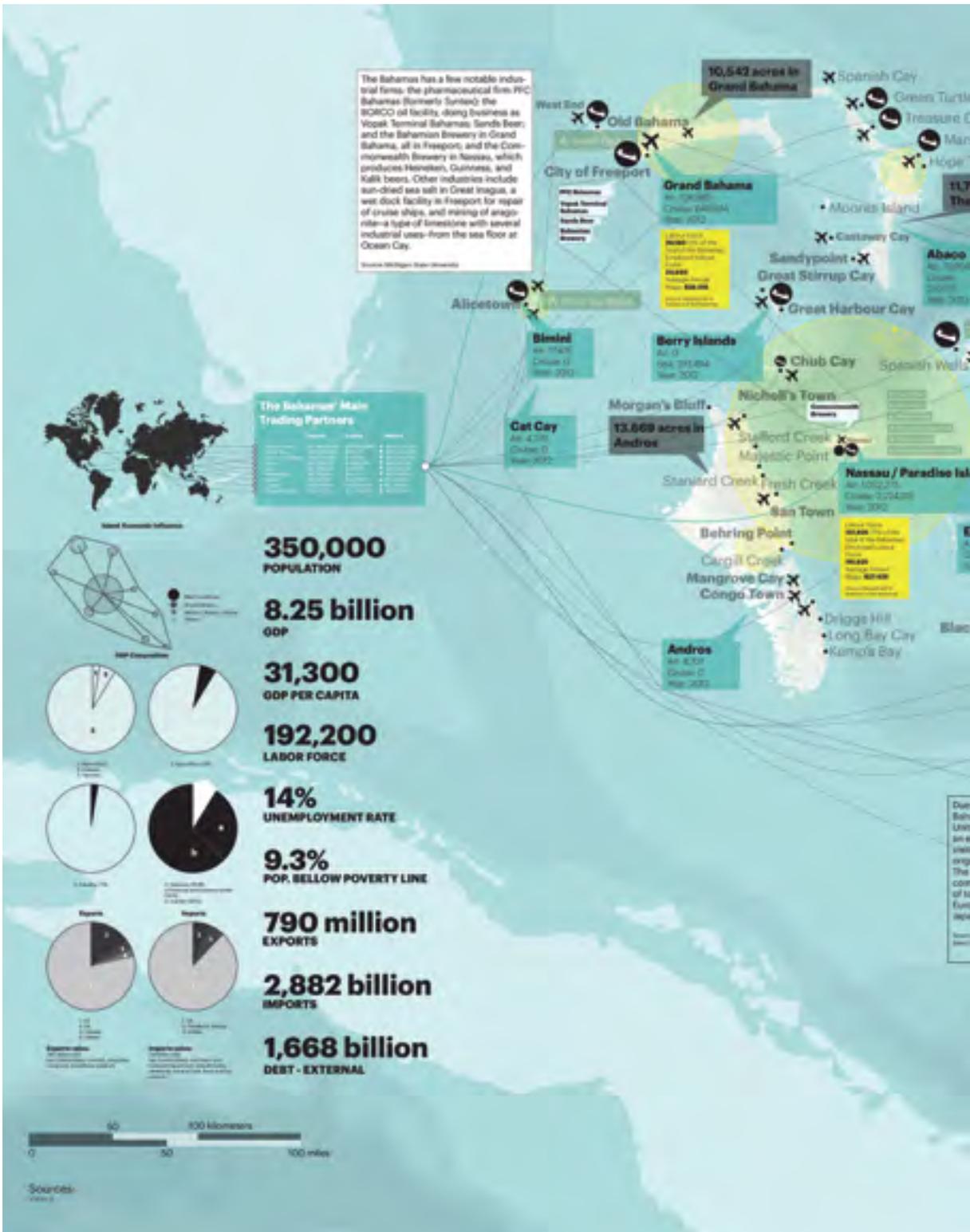
Exuma Maps: Island Geology and Ecologies



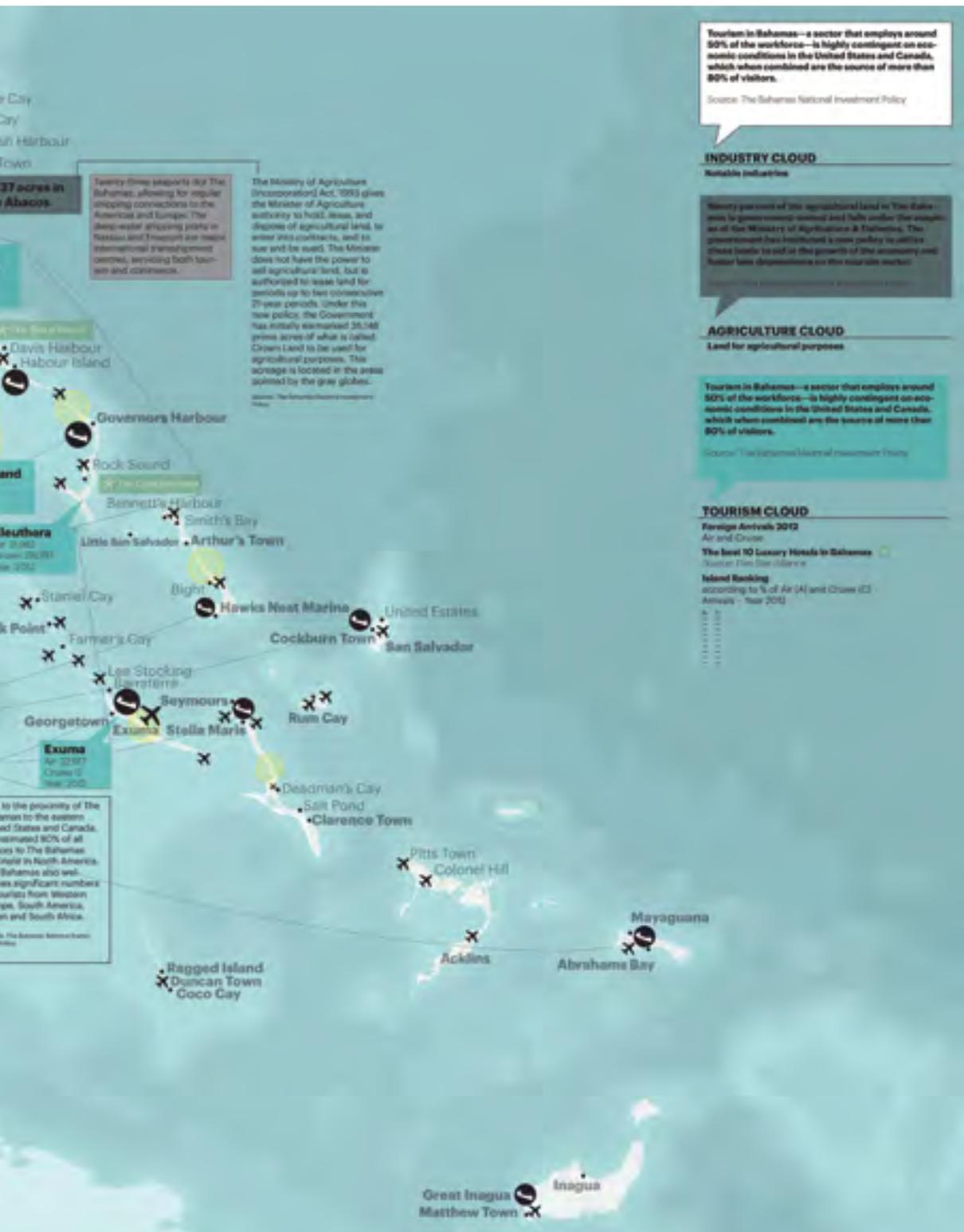


Indigenous and Recent Economies

Having gained independence from Great Britain in 1973, The Bahamas became a relatively young nation facing similar challenges to those encountered by other post-colonial countries. The Bahamas is defining its national and cultural identity, while navigating the global economic context after centuries of political and economic dependence. The macroeconomic picture shows a high dependence on foreign activity through tourism or finance, making the country vulnerable to fluctuations and downturns in economic conditions that are beyond its control. This can be seen in the long-standing reputation of The Bahamas as a tax haven, fuelled by foreign investment in banks that take advantage of the country's lenient tax regulations. Although a gross domestic product (GDP) of \$8 billion USD might depict an image of economic success, The Bahamas faces the challenge of ingraining its economic sustainability with its human and natural resources. The Bahamas must build a self-sufficient and resilient economy that can support foreign investments without selling them for short-term revenue. There is a need to directly link the quantitative macroeconomic number (GDP) to its more qualitative social, cultural and ecological fabric.



Exuma Maps: Indigenous and Recent Economies



Tourism in Bahamas—a sector that employs around 50% of the workforce—is highly contingent on economic conditions in the United States and Canada, which when combined are the source of more than 80% of visitors.

Source: The Bahamas National Investment Policy

INDUSTRY CLOUD
 Notable industries

Recent government investment and funds under the auspices of the Ministry of Agriculture & Fisheries. The government has instituted a new policy to utilize these funds to aid in the growth of the economy and reduce labor dependence on the outside market.

Source: The Bahamas National Investment Policy

AGRICULTURE CLOUD
 Land for agricultural purposes

Tourism in Bahamas—a sector that employs around 50% of the workforce—is highly contingent on economic conditions in the United States and Canada, which when combined are the source of more than 80% of visitors.

Source: The Bahamas National Investment Policy

TOURISM CLOUD
 Foreign Arrivals 2012
 Air and Cruise
 The best 10 Luxury Hotels in Bahamas
 Source: The Bahamas
 Island Banking
 according to % of Air (A) and Cruise (C)
 Arrivals - Year 2012

Twenty-five airports dot The Bahamas, allowing for regular shipping connections to the Americas and Europe. The deep-water shipping ports in Nassau and Freeport are major international management centres, servicing both tourism and commerce.

The Ministry of Agriculture (Incorporated) Act, 1993 gives the Minister of Agriculture authority to hold, lease, and dispose of agricultural land, to enter into contracts, and to sue and be sued. The Minister does not have the power to sell agricultural land, but is authorized to lease land for periods up to ten consecutive 21-year periods. Under this new policy, the Government has initially earmarked 35,000 prime acres of what is called Green Land to be used for agricultural purposes. This acreage is located in the areas outlined by the gray globes.

Source: The Bahamas National Investment Policy

27 acres in Abaco

Exuma
 27 acres in Abaco

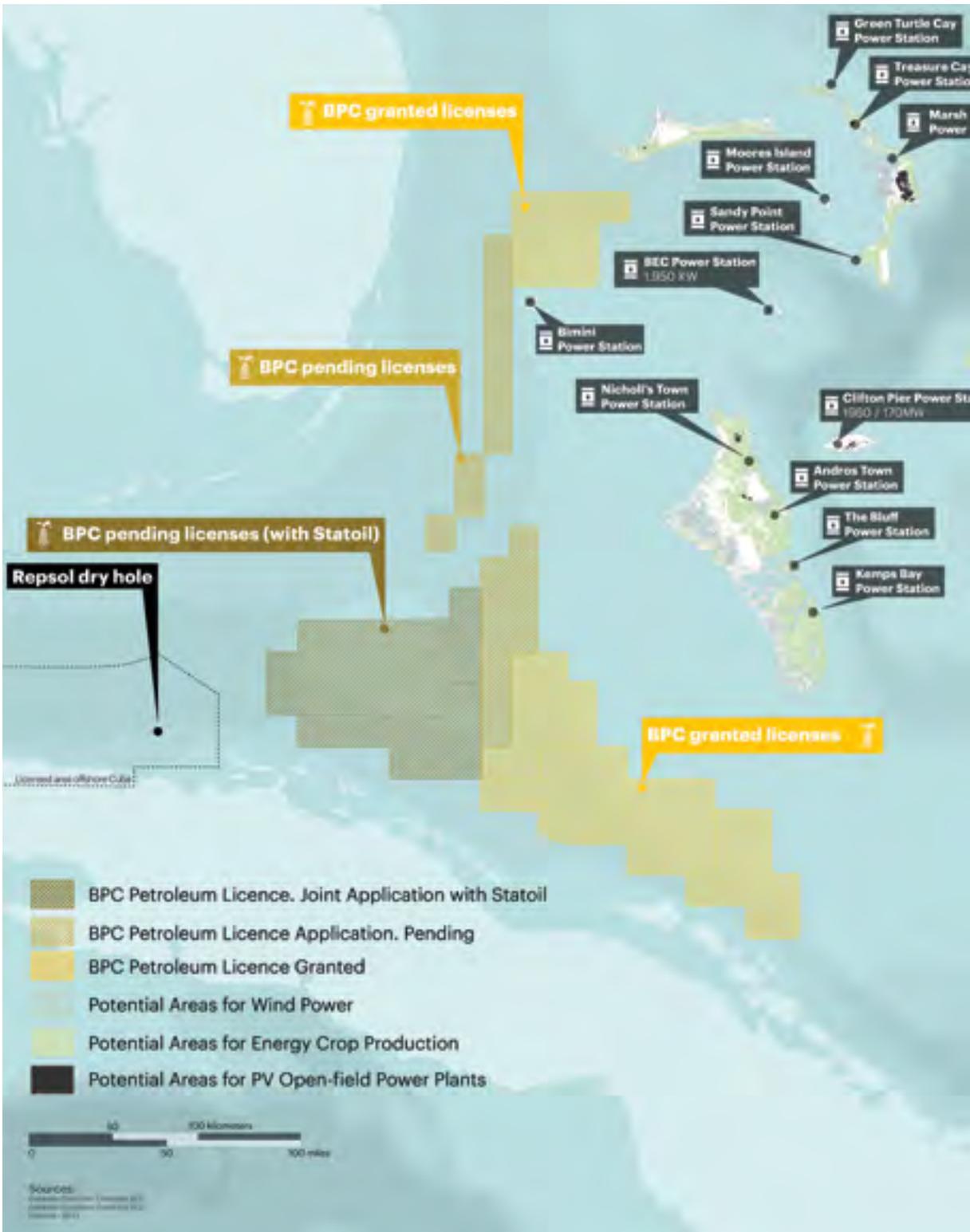
Exuma
 27 acres in Abaco

In the proximity of the border to the eastern United States and Canada, estimated 80% of all visits to The Bahamas result in North America. Bahamas also welcomes significant numbers of tourists from Western Europe, South America, and South Africa.

Source: The Bahamas National Investment Policy

Energy

The unstable, global fluctuations of oil prices and the increasing environmental discussions in the political sphere have created an opportunity for The Bahamas to consider the virtues of renewable resources. Recently, the government has defined a goal of increasing the renewable energy ratio to 30% of all energy by 2030, producing additional energy through sources such as solar capture or wind technologies. The long-term objective collides with a centralised vision and spatial separation between production and consumption. Small-scale production infrastructure could suit the archipelagic condition of The Bahamas but the matter would need to be linked with controversial issues of visual pollution, water resources, desalination, mobility, waste management and even food provision. Furthermore, as each island presents a unique condition, the very idea of a general strategy is arguable; the specificity of needs and particularities to each community may instead require more localised, case-by-case solutions.



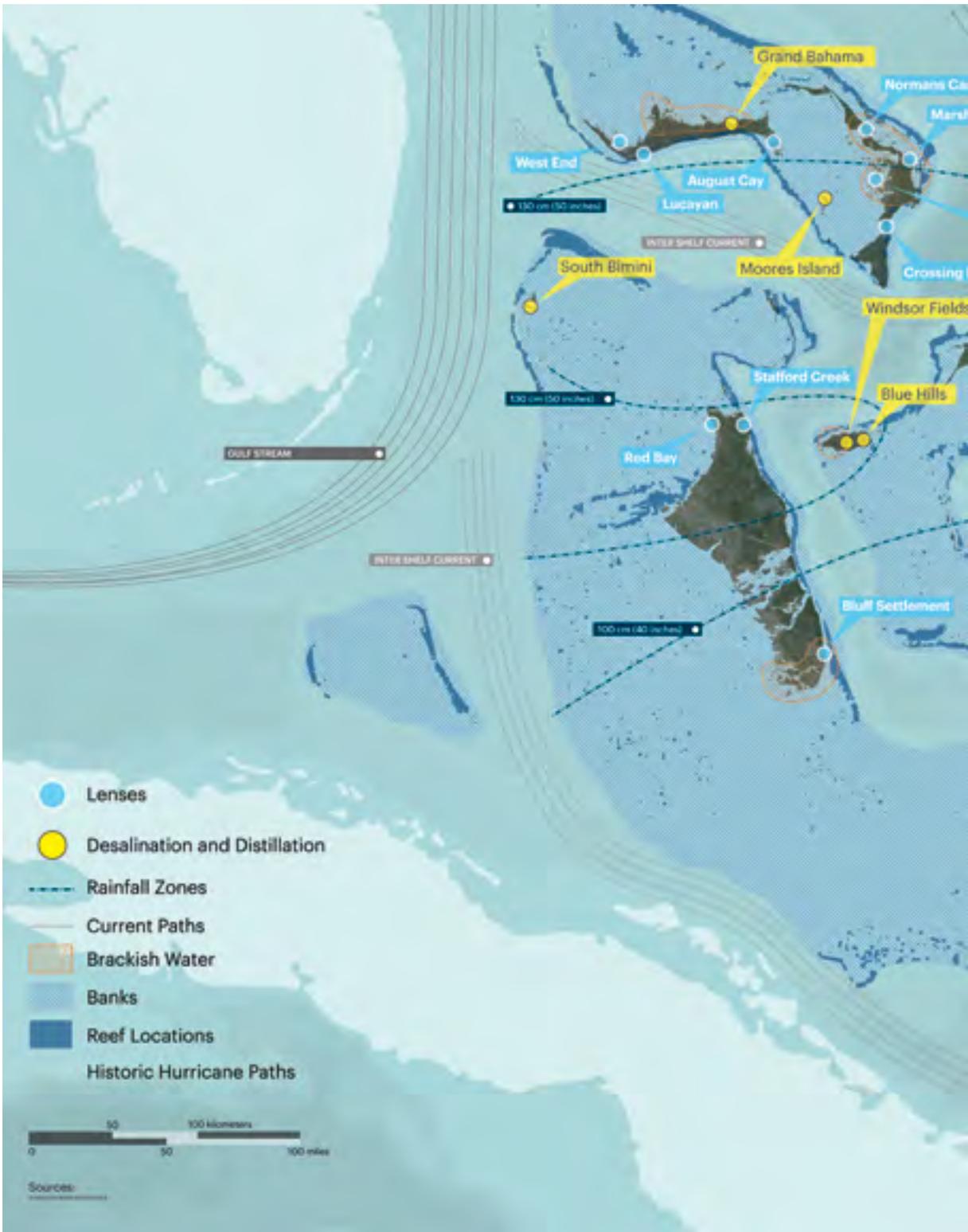
Exuma Maps: Energy



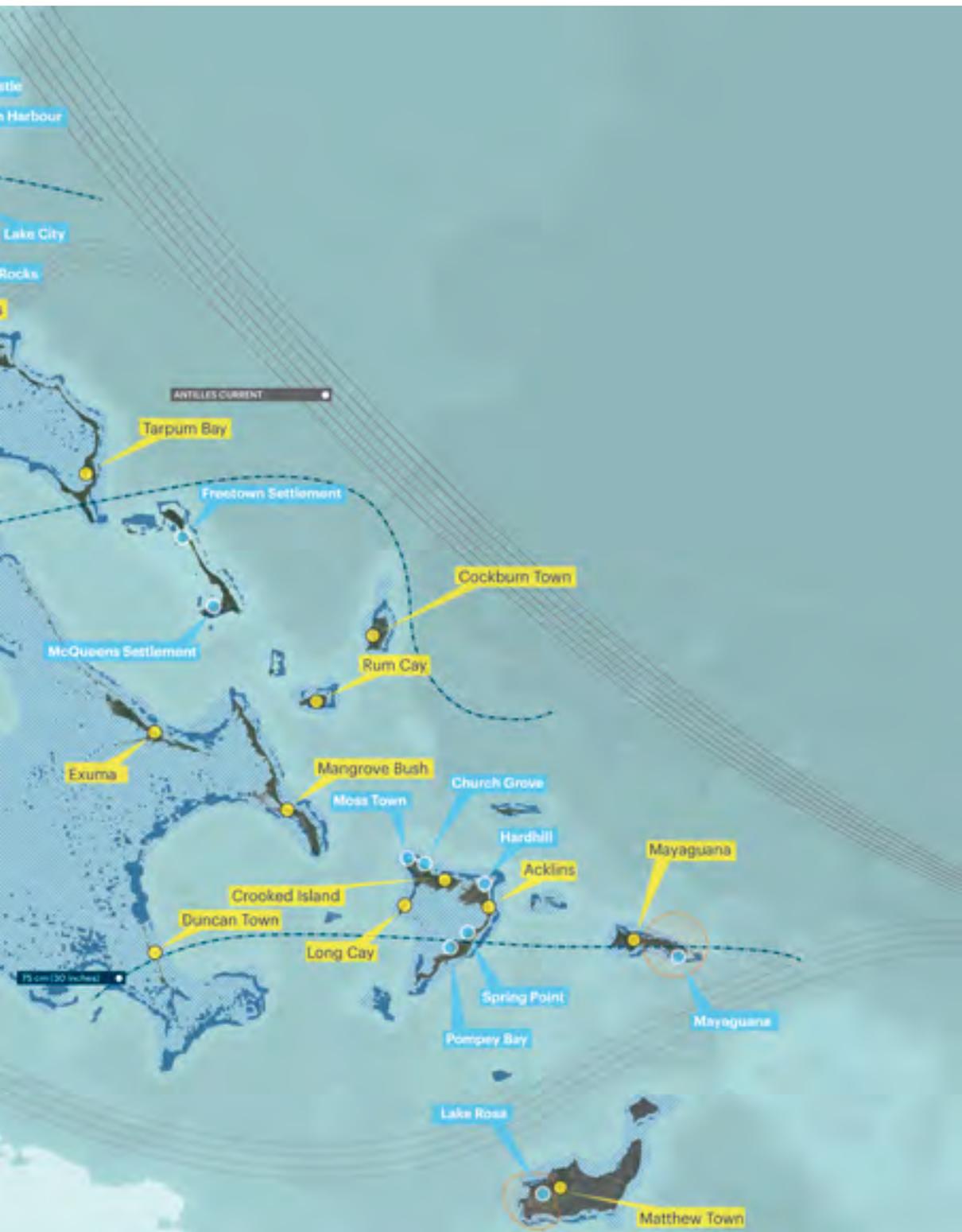


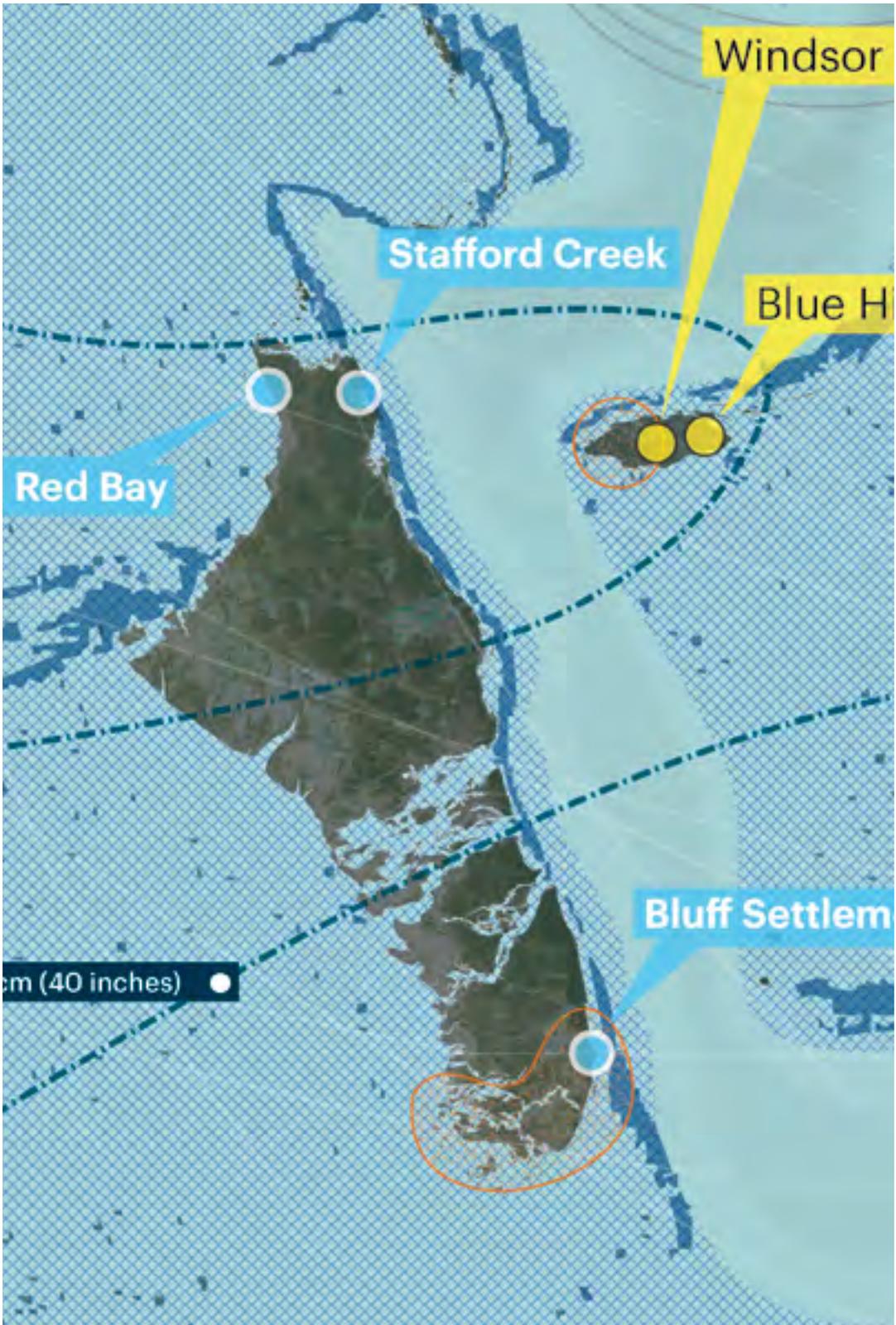
Water and Climate

The only source of fresh water in The Bahamas comes from groundwater reservoirs. The islands rely heavily on the annual rainfall of the Atlantic hurricane season. During these events, frequent flooding occurs, however, this inundation of water helps to recharge the natural aquifers. Access to fresh water is closely linked to climatic conditions. According to United Nations metrics, fresh water is now considered scarce. In addition to the risk of overexploitation and pollution of water lenses, climate change and sea level rise threatens to salinate fresh water. Storm surges related to strengthened hurricanes and inland salt-water intrusion into groundwater sources due to sea level rise are threatening critical natural assets not only for the tourism-based economy, but also for the nation's livelihood and ecological balance.



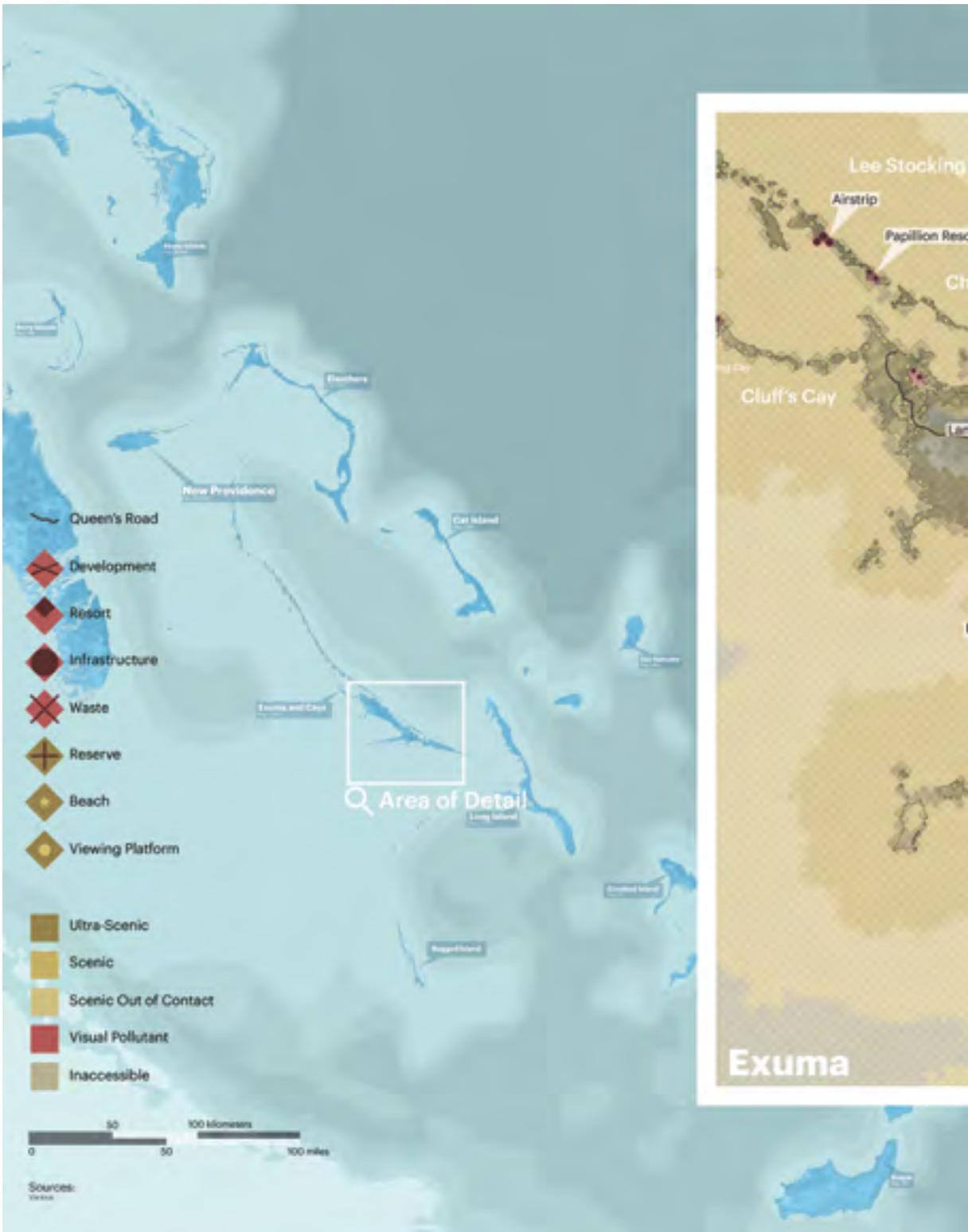
Exuma Maps: Water Climate





Visual Pollution

The Bahamas lacks many traditional natural resources, and its economy is heavily dependent upon tourism and foreign investment. Supporting much of the economy, the premiere economic asset of The Bahamas is arguably its beauty. The main threat to this is visual pollution. The primary source of beauty in The Bahamas is the colour and shallow depth of its sea. Given this assessment, the quality, preservation and regeneration of this beauty should be considered a primary item of concern. The economic perspective suggests a need for preservation, however it also suggests that no resource will materialise monetary wealth unless it is exploited, reflexively destroying the source of wealth. This understanding of wealth and beauty can be viewed from three conflicting approaches: 1.) Attempts of monetary accountability of beauty linked to canonical discourses of ecological preservation; 2.) Proposals of soft exploitation by eco-tourism; and 3.) A more traditional development approach driven by short-term revenues. Still, these mainstream ideas of economic success and their subsequent reifications of beauty or visual pollution are objects of contestation. Successful GDP and 'still scenery' do not necessarily coincide with the well being of ecology and citizenry and with the actual way in which humans and the natural environment self-sustain. Despite the fact that these aprioristic ideas of beauty and pollution might be taken for granted, applying them directly to create policies and allocate investments, they may deserve deeper discussion, rethinking what alternative ideas may fit better with the internal landscape's dynamics of life.



Exuma Maps: Visual Pollution

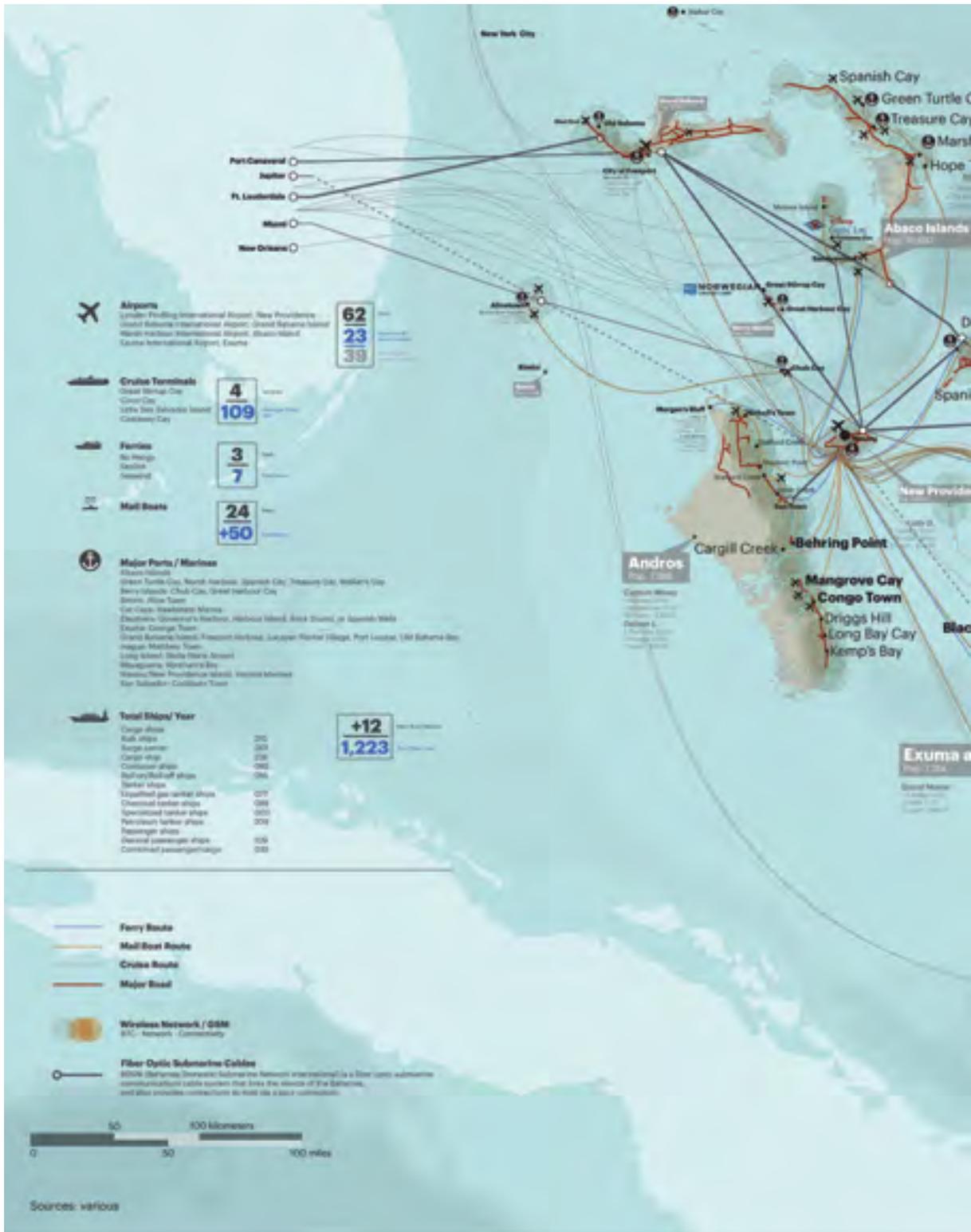


Resort



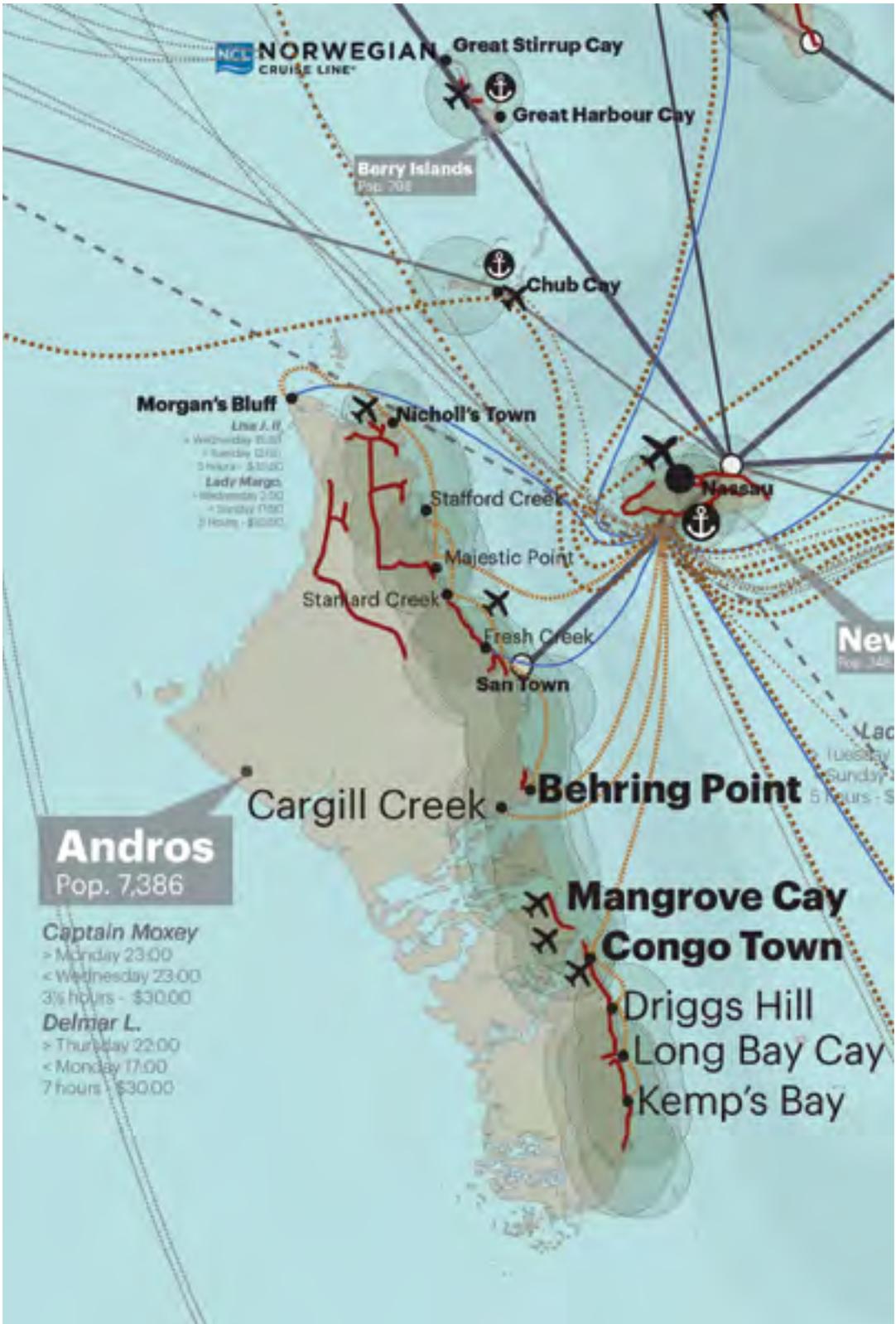
Mobility

We see the centrality of Nassau within inter-island transportation systems, stark social stratification, as well as tendencies towards informality, especially in Exuma. Examining how different forms of air, sea, and land travel play out across the geographies of The Bahamas gives context to the various themes arising from our conversations. Each travel modality can be understood as producing a particular experience of The Bahamas for each traveler which can be related with economic and political values relevant to planning and design.



Exuma Maps: Mobility

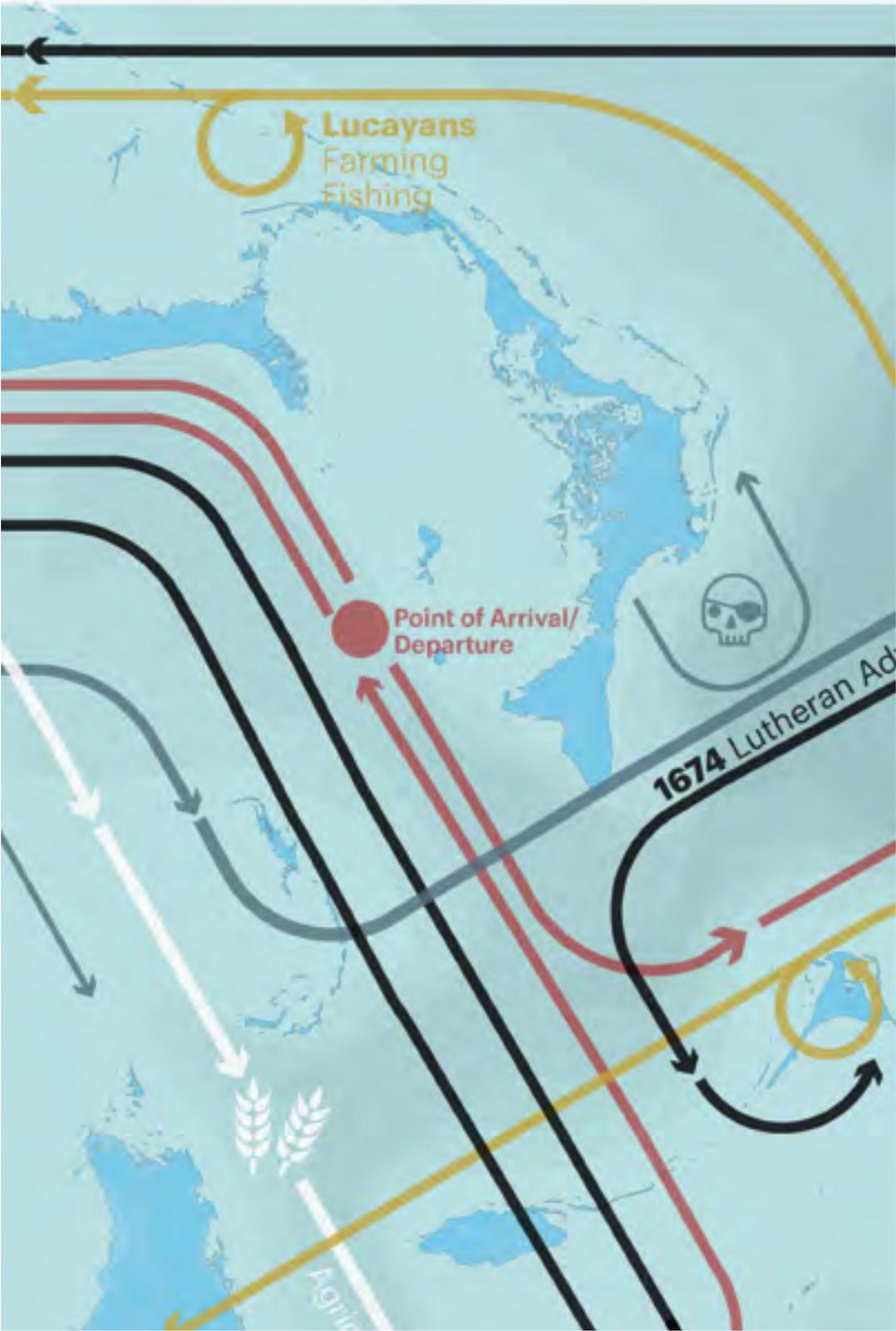




Socio-cultural Traditions and Patterns

A few anthropological commentators have reflected on the sociocultural traditions and patterns extending from The Bahamas' colonial history. Nicolette Bethel (2002) argues that Bahamians are caught in a paradox between 'insularity' and 'cosmopolitanism', between the formal shape of a national identity and the informality that populates their lives. Paul Gilroy (1993) expounds the W.E.B. DuBois articulation of 'double consciousness' between African origins and Western influences within the post-emancipated, Bahamian population. Paul Albury (1975) depicts a history between piracy, privateering and wrecking, and farm-related hard work—relationships that permeate literature (Dahl, 1995), storytelling (Glinton-Meicholas, 1994), and Junkanoo (Ethnographic Fieldwork). Virgil Storr (2006) strongly associates economy with a 'dualistic', one that is attached to stories of Rabbynism and the other tied to the entrepreneurial ethic of hard work, creativity and the dissolution of class that Junkanoo represents, which seems to be directly associated with the slave autonomy achieved after the failure of the plantation economy. Craton and Saunders (1992) draw on the arrival and departure of the loyalists and the legacy they left. In a sense, if the sea brought them, then the land motivated the slave owners to leave. They liberated their slaves before legal emancipation. This ultimately fostered the current attachments to land through generational property (Bethel, 2002). Is this embodied in the culture of Exumians? Are these observations nostalgic interpretations of Bahamian history or are they fair portraits of the cultural intimacy (Herzfeld, 1997) that agglutinates national identity?



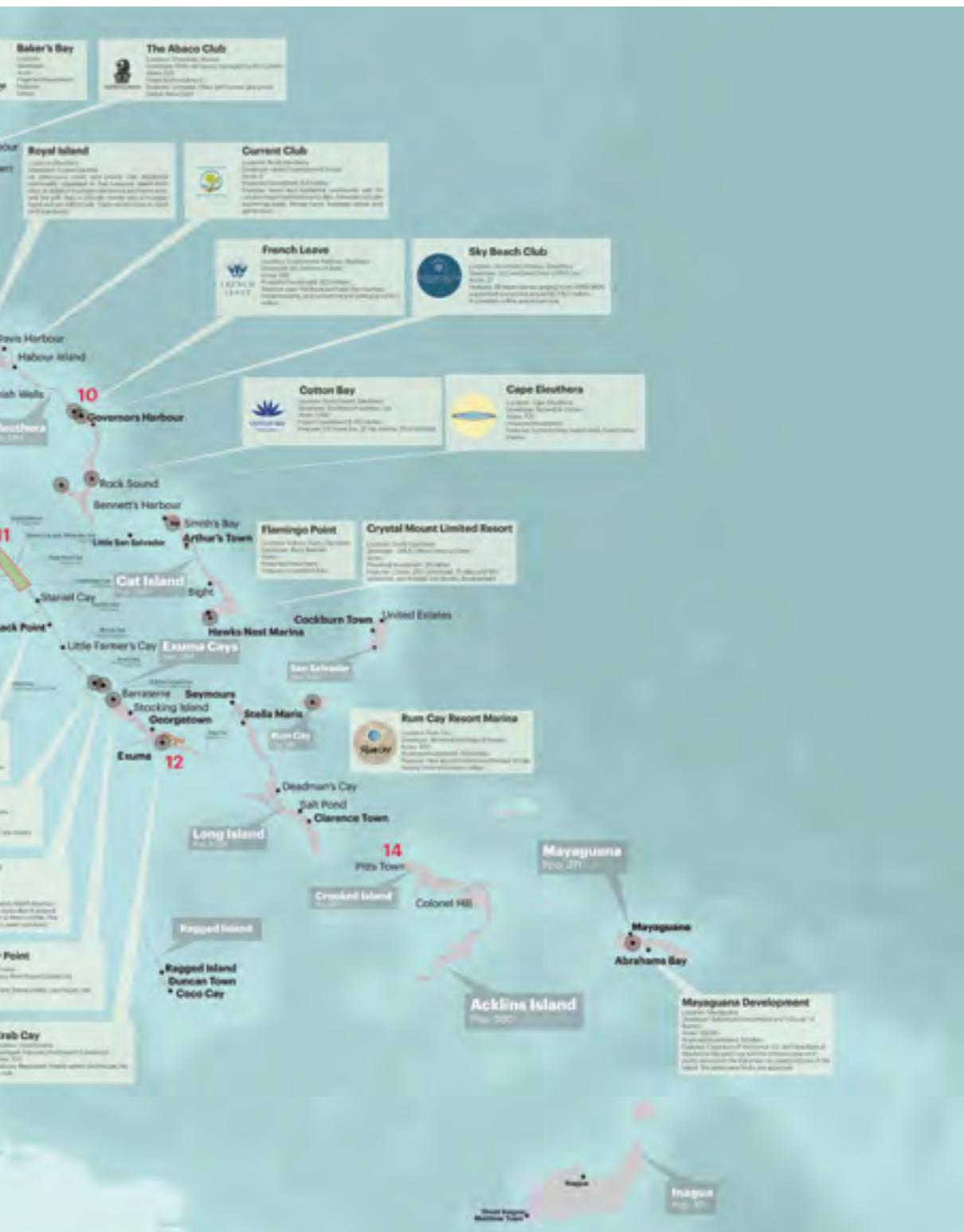


Development Frameworks and Land Use

The Bahamas has a wide-sweeping body of laws and policies. A set of legislative bills, acts, enforcement bodies and protocols control development and conservation of the islands. However, there is no comprehensive vision or plan for development. Instead, it is often initiated through projects led by private developers. While the approval of development projects follows regulated procedures, it does not seem to respond to public agendas and accountability previously generated through public discussion. There are four types of land tenure in The Bahamas: True Crown Land, Private Land, Commonage/Generational Land and Government Land, the last of which is granted to the treasurer for public use. Regimes of land are tightly linked to Bahamian history, its cultural heritage, generational lineage and identity. Due to this particularity, which is not currently subject to the same level of intense development the market has implemented in other touristic areas, there is a weak link to ecological conservation. The predominance of regimes of land as commons transcends the traditional polarity of land as a commodity or as general public good. This opens new possibilities of engaging communities to shape development frameworks and implement mechanisms, linking them to opportunities with indigenous economies, social relations, traditions and ecological protections.



Exuma Maps: Development Frameworks and Land Use





*99% of our homes and businesses are
connected to the Internet.*

The very little money you make, you spend. All of it goes to travelling. It takes too much money and too much effort to move from island to island. It is a little bit like jail.

Fieldwork Summary

...the Defense Force was added to patrols after scuffles and conflict with poachers on the island cooled out since then. It was the first person we have talked with that has given us a chain of the owners, tourists, and ex-guns walking in the park. He doesn't think it is fair to be the primary professors of the park in terms of employment, and the locals are primarily fishing - he notes that he frequently buys crabs as well. He speaks enthusiastically, but is careful and reserved in his answers. I imagine that he has probably learned in the past, confronting tourists poaching, to use his stature and demeanor to his advantage in the past, and that he is no doubt doing this in his conversations with us.

Lack of Fresh Produce

...started talking about fresh fruit and vegetables, items remarked with dismay, "no one growing anything on the island anymore." Before, everyone had their own garden, or could at least buy produce from their neighbors. Now everyone buys their produce in the stores, and the farmers left on the island mainly send their produce off to be sold in the main islands or sold in Florida, for example. Kipke remarked off-handedly that they had been growing fruit and staples, and couldn't find any fresh items in the stores' refrigerated sections. "Well I have a fruit tree on my old family property," exclaimed Rene, and before long, all four of us were out of our rental car driving a short way south along the main road to Rene's direction.

Growing Concerns about Beach Access

...He also indicated anxiety about the transforming vicinity in the island. It used to be that the people buying property would have a 'good, cordial relationship' with the community, which he said made the island an attractive place. He compared the way to other places such as the Caribbean where there are 'tensions' between black and white, economic disparity. He said that Starfish Cay is a place in which the community feels good about itself and what it's doing. It has 'pride and confidence.' He followed up through that beach access is becoming a problem as more property is being sold, and they are trying to figure things out to ensure some beach access. They are trying to convince private homeowners that it is in their interest to do so.

Obesity, Diabetes, and Hypertension

"I asked what she considered to be the most predominant health threat in the Bahamas, and she said obesity. My follow-up question concerned the co-morbidities of obesity, and I learned that heart disease is surprisingly low - at least in Black Point - but that diabetes and hypertension are steadily rising. The situation is a little bit better here in Black Point than in Nassau, thanks to the absence of McDonalds and Dunkin' Donuts, but many of the food prepared here is fried all the same. She told me that the diet here is somewhat restricted in terms of what is available and affordable, and some food customs - such as frying fish - are indelibly woven into the fabric of the Bahamas. 'No doctor can change that,' she said, in reference to the high salt/high fat style of frying foods."

The Multiple Functions of an Island Airport

"The airport receives a private plane several times per week. However, so when space it is not what we would expect from a traditional airport. 'Best lunch is served at the airport restaurant on Sundays' a Bahamian told me. A long line of concrete pavement in one border of the island, it has two buildings by its side - one restaurant and one waiting room. Parallel to the concrete line it is what the pastor advised to be 'The best beach of Little Farmers Cay. I don't go to other beaches because I don't like the ocean.' The airport not only brings people, but also it brings packages that relatives that live in Nassau send to the people from the Cay."

Mobility

"He said we have bus stops all over the island. You know those stands along Queens Highway that are painted bright colors. Those are the bus stops. The buses come there, and they are funded by the Bahamian Government. Where do you get most of the kids from would you say? 'Homes' he starts, 'your kids come from St. Thompson, Ramsey, Belleville because there are 2 different buses that take kids to the west, and 2 buses take kids to the east.'"

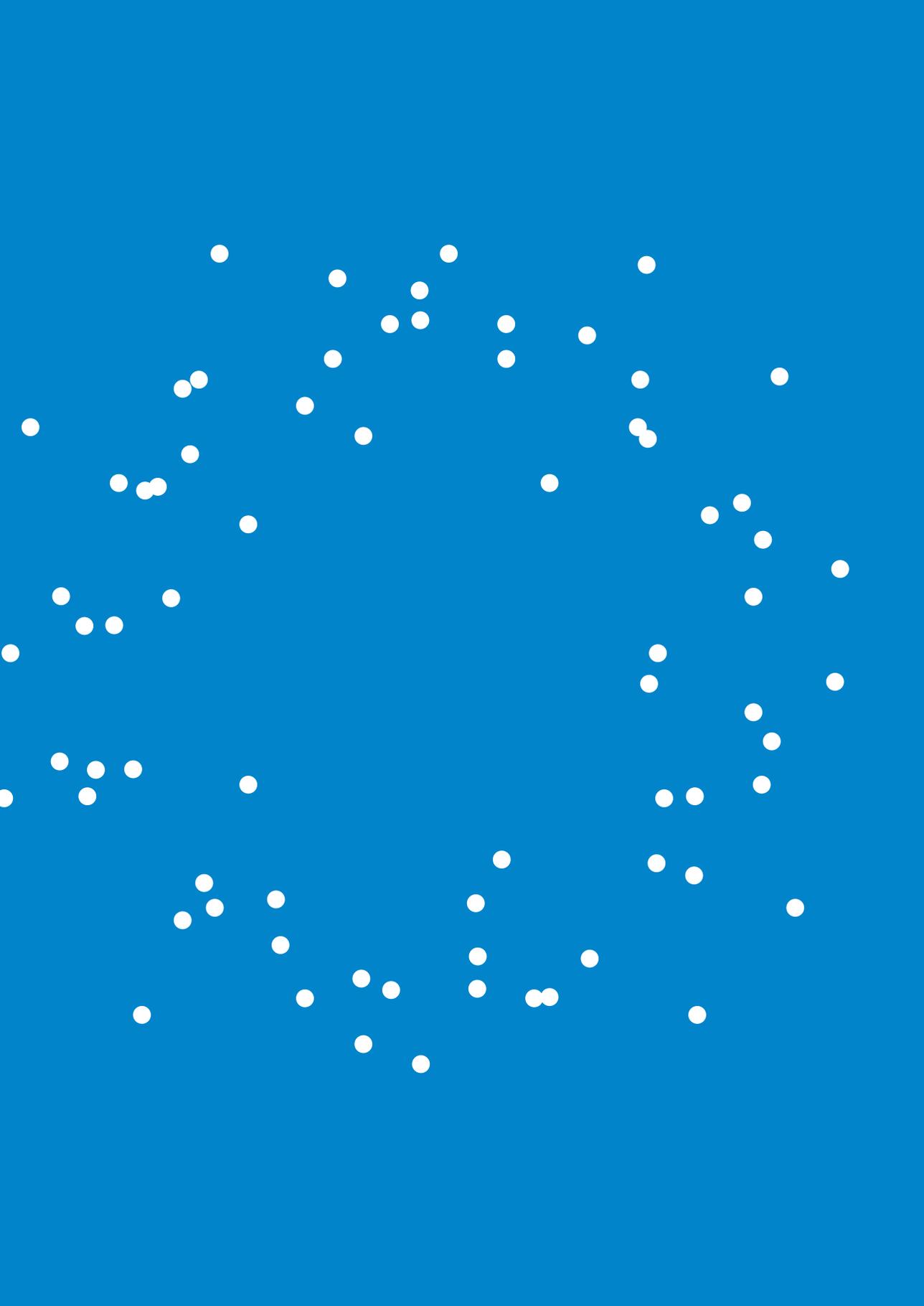
High Energy Costs

Sofia explains that electric bills are a financial challenge for many businesses in Exuma, and that 75 percent of the bill is the cost of gas. Sofia, who happened to be at his premises around the end of our interview to refill her water containers, also mentioned that the Bahamian law doesn't allow residents and business owners to generate their own electricity from solar energy if the national electric grid covers their island. Sofia complained that the Bahamian government is not considering off-grid, low-cost and more distributed technologies, solar energy for instance, which makes them more reliant on global energy markets and more tempted to borrow money from IMF and Chinese banks.

Commonage Land Ownership

"The difference between Commonage is that they own the land, but as with Commonage they cannot sell the land to members outside the descendants of the family, so they cannot get mortgages over it. In order to build a house you need to get the money by other means. In Commonage land you can do nothing," she said. As Eduardo said, this is the reason why there is only 20% of Commonage land developed. I wonder if it is also the main reason why Exuma is ecologically preserved."







Review Meetings

On 4 October 2013, the Deputy Prime Minister and representatives from the Government and Exuma, travelled to Cambridge for a review meeting with the Exuma project team and faculty and researchers from the Harvard Graduate School of Design. This meeting was complemented by a separate meeting in Nassau on 22 November 2013 for the leadership and representatives of the Bahamas National Trust, and the Exuma research team. The purpose of the meetings was to review progress and the methods being developed, and to discuss further steps for the project. Exhibitions were mounted of maps and project work to-date. Both these meetings are documented through the following photographs.

various programming, the Q&A in Cambridge
Bathrooms to take part in any of the day
a 5-week summer Career Discovery Pro
for Educational Outreach in The Bath
Independent Studies at the Q&A each year



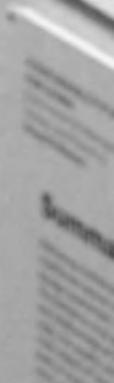
age, MA, in addition to scholarships for
new programmes at the GSD there is also
programme. Harvard faculty will be available
and will also offer a Course, Studio or
one of the project.



































enton
Rox
The Hermitage
Tar Bay
Hockere

Stocking Island
Elizabeth Island
Nelson
Metown







The History of The Veronica Rudge Green Prize in Urban Design

The Veronica Rudge Green Prize in Urban Design is the premier award recognizing achievement in this field. The award was established in 1998 on the occasion of Harvard University's 200th anniversary and the 50th anniversary of the Harvard Graduate School of Design. Nominations for the prize are received from the GSD's extensive network of academics and urban design professionals.

The prize is awarded biennially to recognize exemplary urban design projects that have either been built or in some way left an indelible mark on the public realm of a city and represent a positive contribution to the field. The project must also demonstrate a balance and worldwide direction for the design of urban environments.

Since its inception in 1998, the Veronica Rudge Green Prize in Urban Design has recognized exceptional projects in urban design. It is the field's most prestigious award and is a testament to the quality of the work being done in the field of urban design and the impact it has on the public realm. As a leading institution in the field, the GSD is proud to have such a distinguished award named in its honor.

Veronica Rudge Green Prize in Urban Design
Harvard University
79 Garden Street, Cambridge, MA 02138
www.harvard.edu/gsd/prize



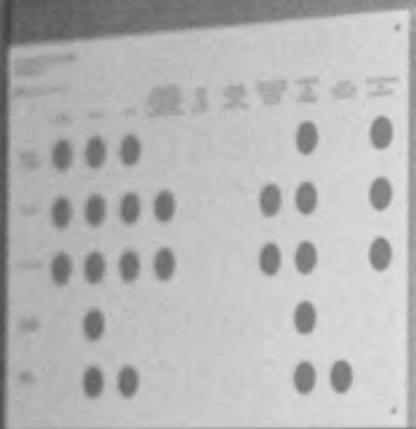




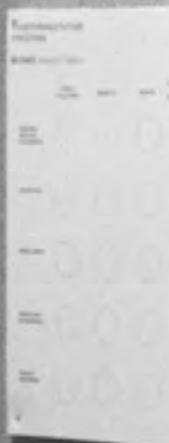
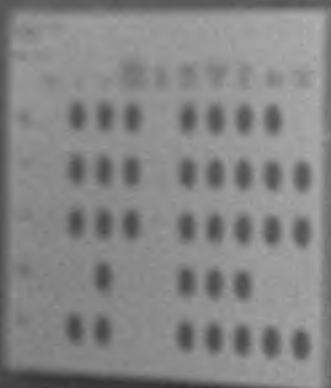
MAKE
SOIL



RAISE
GOATS +
CHICKENS



ADVA
AGRIC



FACILITATE
CONNEC-

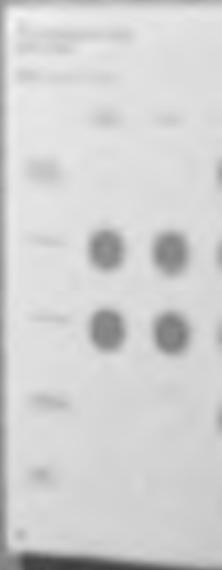




**ANCE
CULTURE**



**PROMOTE
LOCAL
INDUSTRY**











**A SUSTAINABLE FUTURE
FOR EXUMA**
Environmental Management,
Design, and Planning
Review Meeting

Windsor Room A
22 November, 2013
sustainableexuma.org













Mark Swartz



PHASE 2: REDDING

x5



Neighborhood Selection

80,000 = 400,000
FRUIT TREES



300 x trees



General Criteria 1 Neighborhood Income Levels



General Criteria 2 Access to Fresh Food Outlets + Markets



General Criteria 3 Soil Conditions + Land Availability

Urban Tree Canopy Program
 The program is designed to increase the amount of tree canopy in the city and to improve the health of the city's trees. The program is open to all city residents and businesses. For more information, visit www.cityofchicago.org/urban-tree-canopy.
 August 2015

















Acknowledgements

Support for this year of research and engagement has been generously provided by the Government of the Commonwealth of The Bahamas, the Bahamas National Trust, and His Highness the Aga Khan. Many people have worked tirelessly to make this report a reality both at Harvard University Graduate School of Design and in The Bahamas. Special thanks are due to the people of Exuma for their warm hospitality and support.

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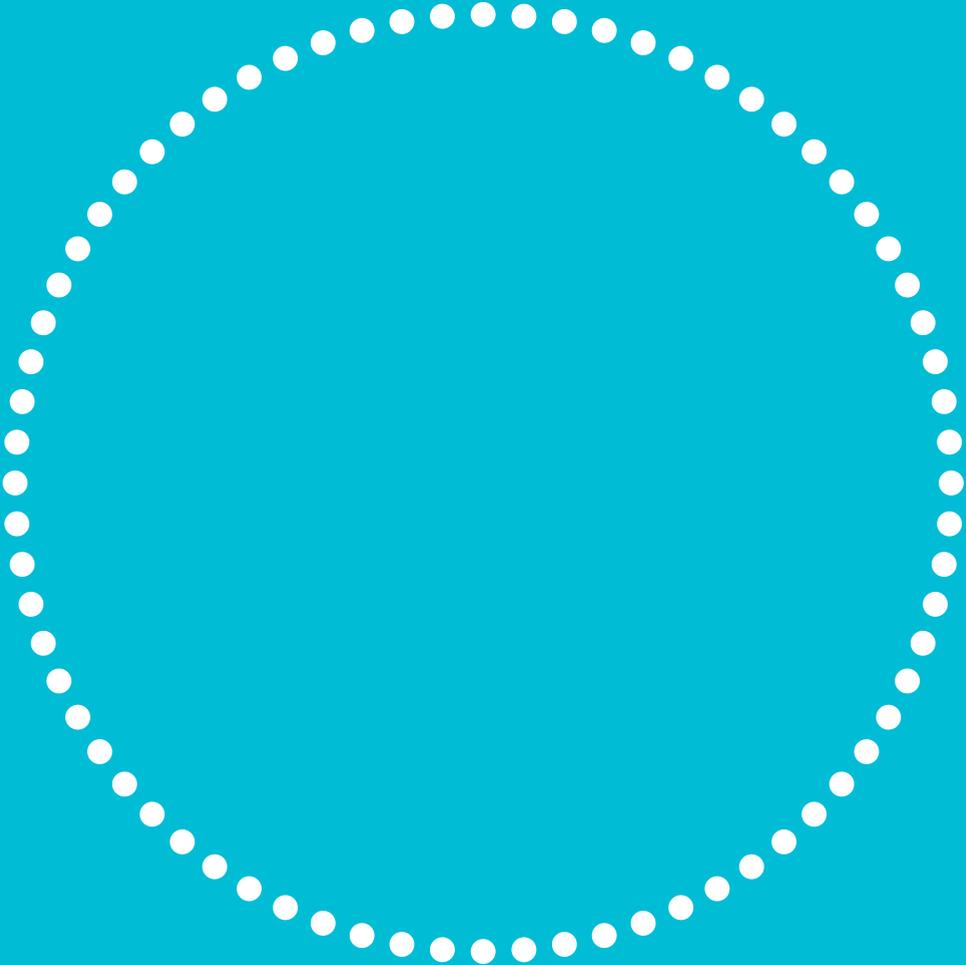
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Why Not Smile, New York

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**Marisa Wells, Maggie Janik
Members of the Exuma Research team,
and students of Design Anthropology**

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Bahamas National Trust



**Harvard University
Graduate School of Design**

**The Government of
the Commonwealth of
The Bahamas**