



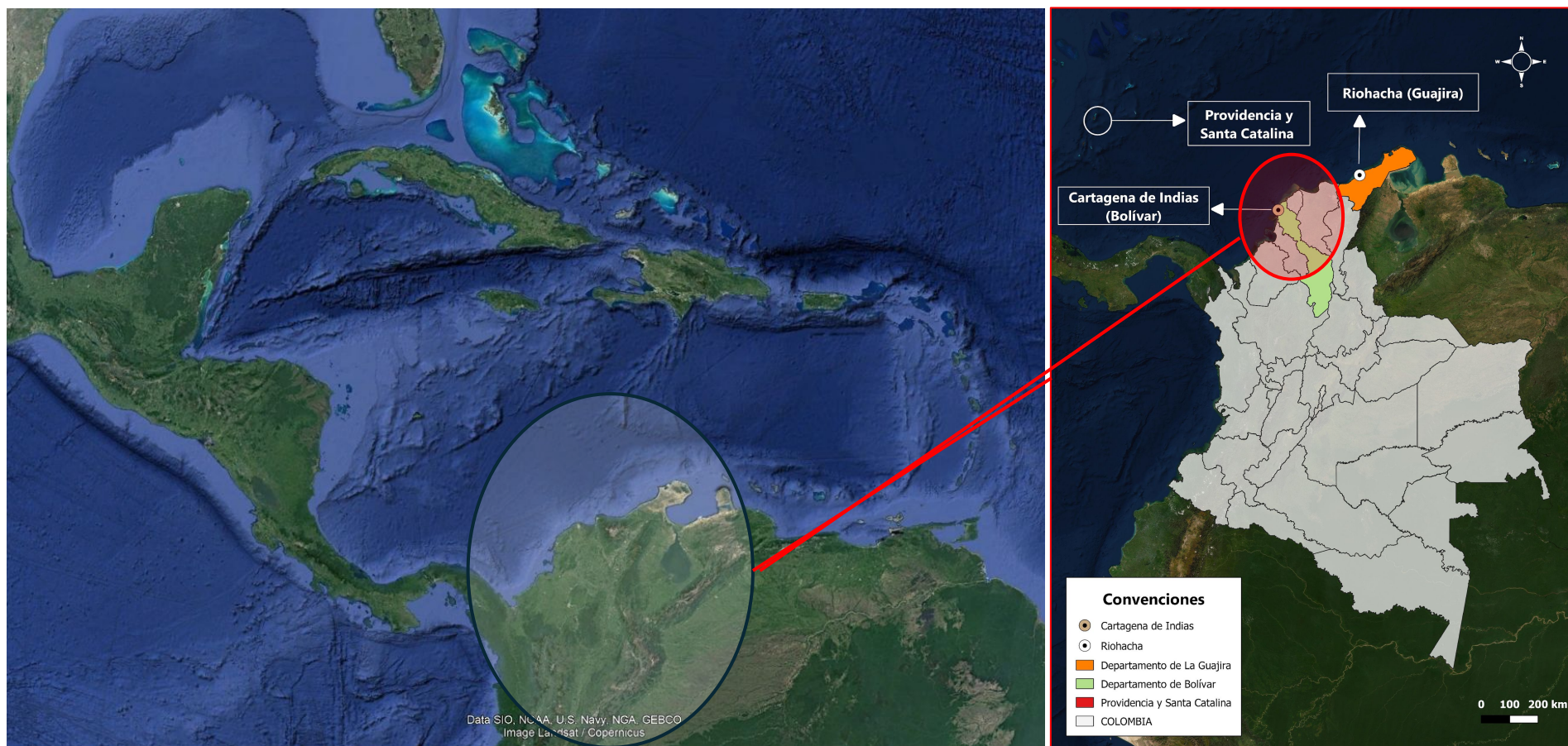
Local problems, global solutions: Climate change impacts on the Fortified Landscape of Cartagena de Indias, Colombia

Panel 3
Climate Change Adaptation: Domestic Efforts
Towards Climate Heritage Policy

CARLOS DEL CAIRO HURTADO
Member of preserving Legacies Project
Professor – Researcher Escuela Naval Almirante Padilla ENAP
Colombia

U.S. Climate Heritage in the International Context
Washington D.C October 4th, 2024

Cartagena de Indias, Colombia, South America



The city comprises the World Heritage site of [Port, Fortresses and Group of Monuments, Cartagena](#) was inscribed in the World Heritage list in 1984

The site includes the most extensive fortifications in South America, as well as several quarters of the historic city. A system of zones divides the city into three neighbourhoods: San Pedro, with the cathedral and many Andalusian-style palaces; San Diego, where merchants and the middle class lived; and Gethsemani, the 'popular quarter'.

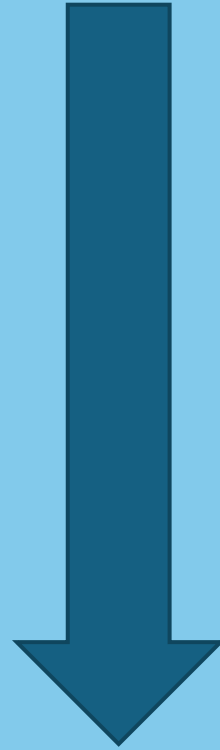


Cultural policies for heritage protection and conservation

from the verticality of state competences

have excluded the strategic participation of relevant actors in the processes of protection, research, dissemination and divulgation of cultural heritage.

contribute to avoid the destruction of cultural landscape contexts. .



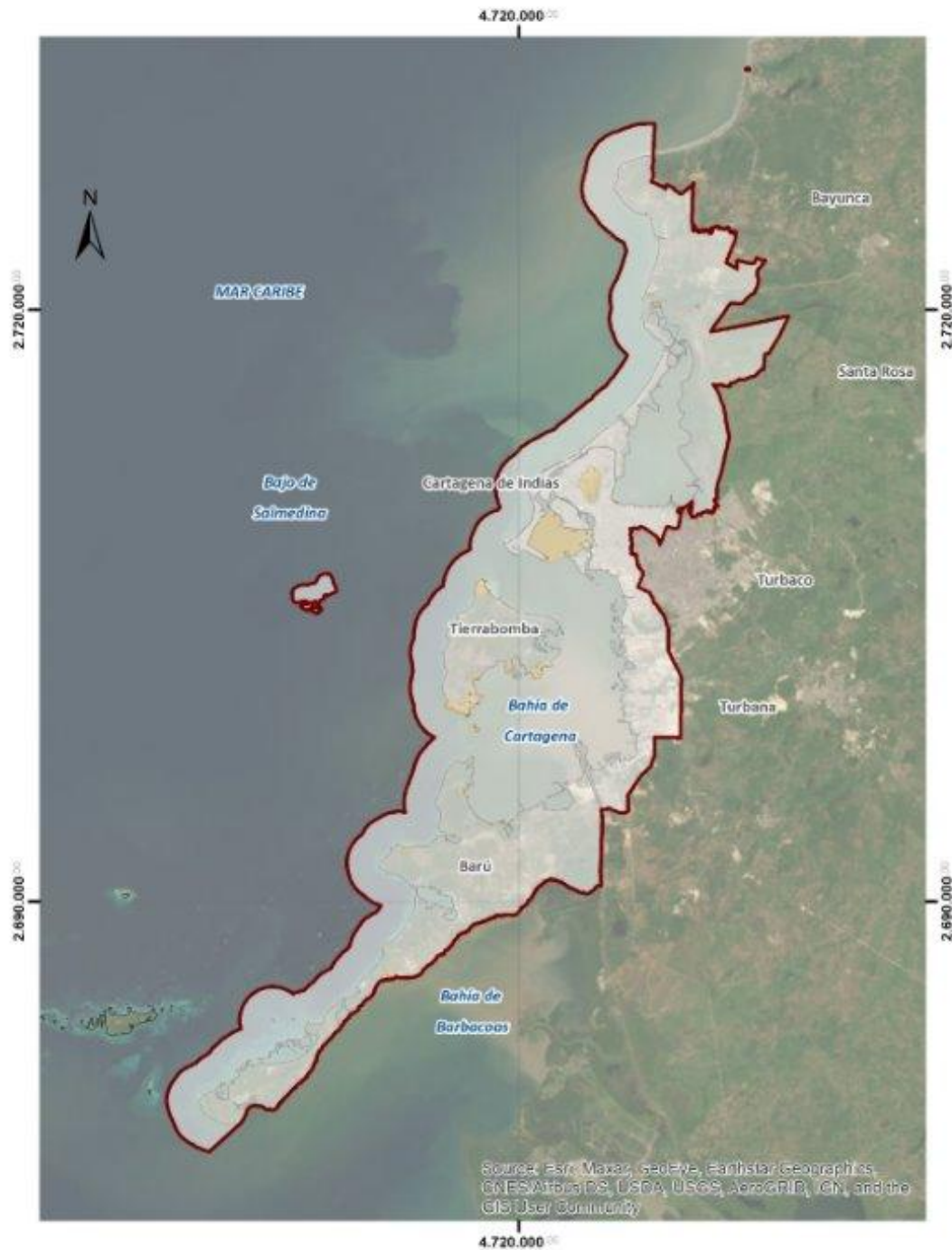
Governance of cultural heritage



How to implement national and transnational public policies

Horizontal interaction of the various authorities with local civil society actors and academic structures based on pluralistic, inclusive and non-hierarchical action for the co-production of regulations and actions.

**Construction of a
Knowledge Society**



The Fortified Cultural
Landscape of
Cartagena de Indias is

An hybrid territory

Sea and land integrated
as an assemblage of
non human and human
actor

Dissolution of borders
horizontal and vertical
Sea-Land

Dissolution of
dichotomy between
nature and culture

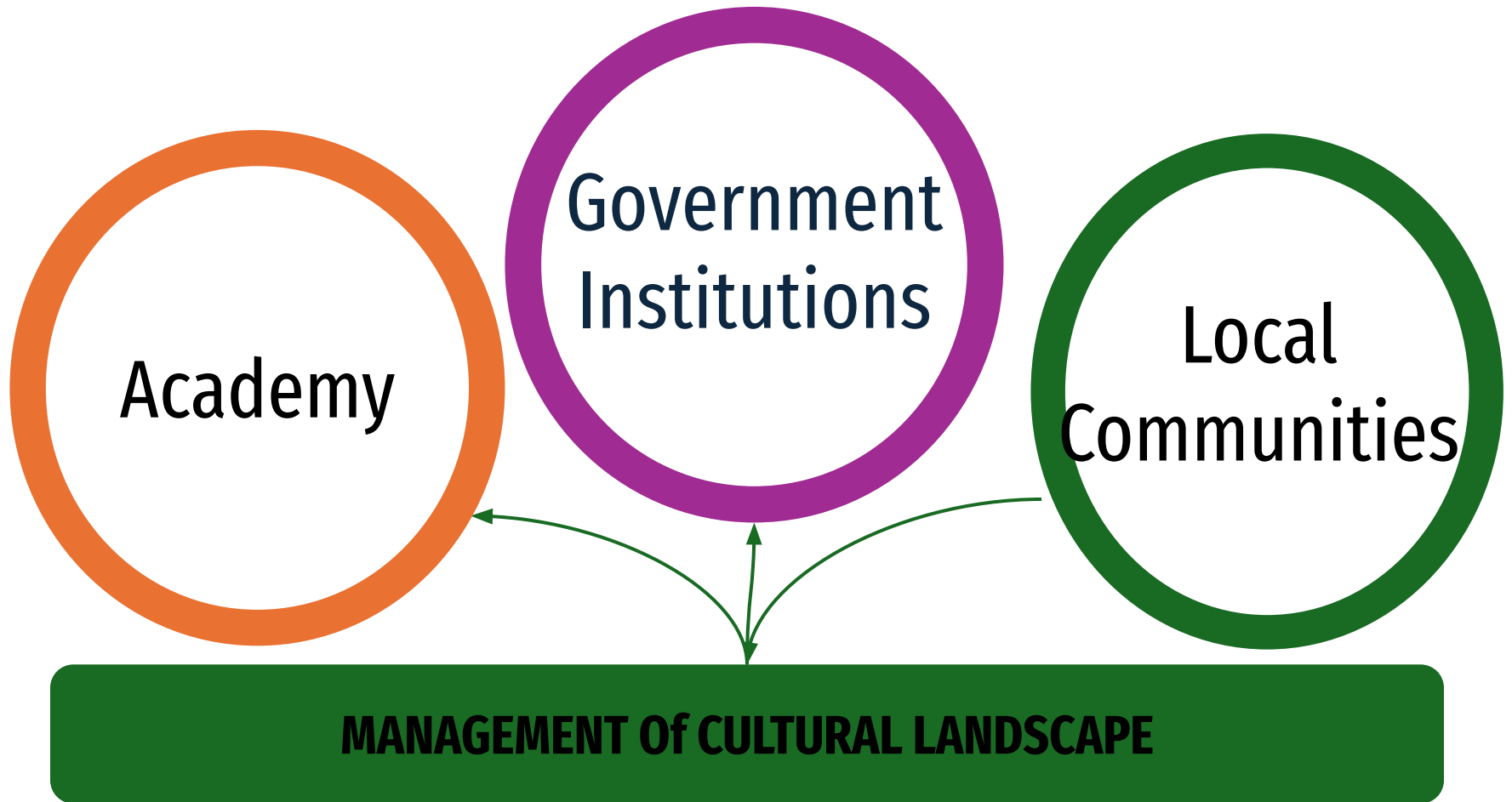
if waves are understood in all their complexity – as forces, as vectors, as assemblages of molecules and meanings, as spaces of periodicity, randomness, instability and transformation, and as volumes (depths) and areas (surfaces) – then waves, and the wet ontology they exemplify, may be exceptionally well suited for understanding the politics of our watery planet. (Steinberg, 2015)

A Special Management and Protection Plan (PEMP)



is a cultural heritage planning and management instrument that establishes the necessary actions to guarantee the protection, conservation and sustainability of heritage assets.

Interinstitutional Work in the Recent Years



the customs and traditions of the surrounding communities (daily life),

The natural elements of the bay (geomorphology, flora, fauna),

THE FORTIFIED
LANDSCAPE OF
CARTAGENA DE
INDIAS

the water and land roads that connect and communicate the entire territory.

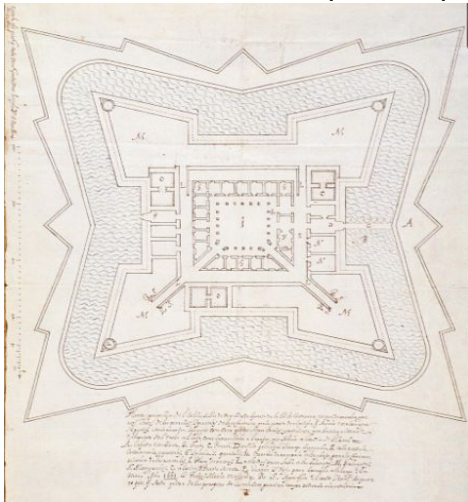
the physical contexts of the properties that are now national heritage (architecture adapted to the environment and in response to socioeconomic conditions),



Military constructions



Del Cairo, C. (2011)



Planta y perspectiva del Castillo San Luis de boca Chica del Puerto de la Ciudad de Cartagena (1661)
MP-PANAMA 73



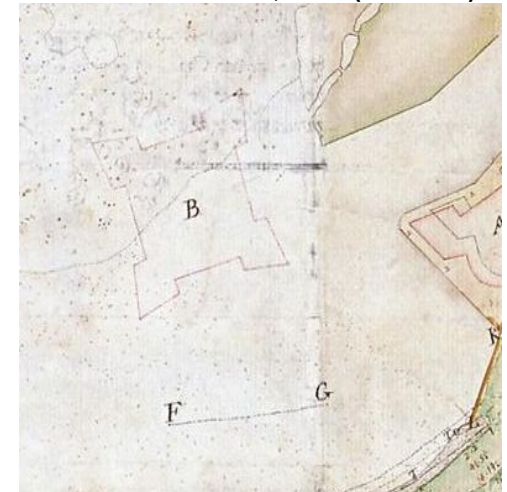
Del Cairo, C. (2011)



A plan of Fort St. Louis, St. Joseph, St. Jago & of St. Philip situated at ye entrance of Cartagena Harbour or Boca-Chica with ye parts adjacent and also of the attacks made against the said forts (1741) Library of the Congress



Del Cairo, C. (2011)



Plano del Canal de Boca Chica, Cartagena de Indias (1758)
MP-PANAMA,342

Archaeological remains

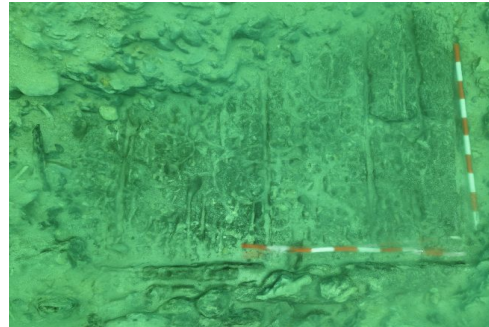
Castillo de San Luis - S. XVII/XVIII



Underwater Cultural Heritage



Fundación Terrafirme
(2017)



Aldana, J. (2019)



Fundación Terrafirme
(2017)



Plan of the Harbour of Cartagena in America Seated 16 Degrees 26 Minutes Lat. north and 75 degrees 21 Long. West of London, from a Draught brought to England by by Pet. Chassereau Archi: Also a View of the Fleet as they Anchor'd on ye C (1741) Osher Maps



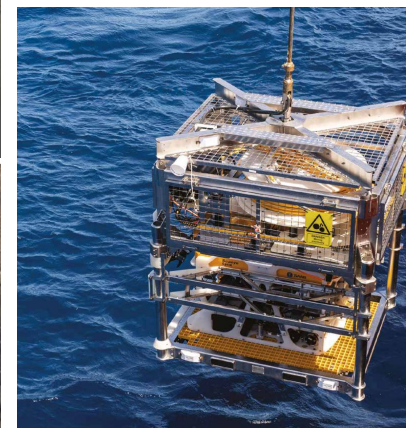
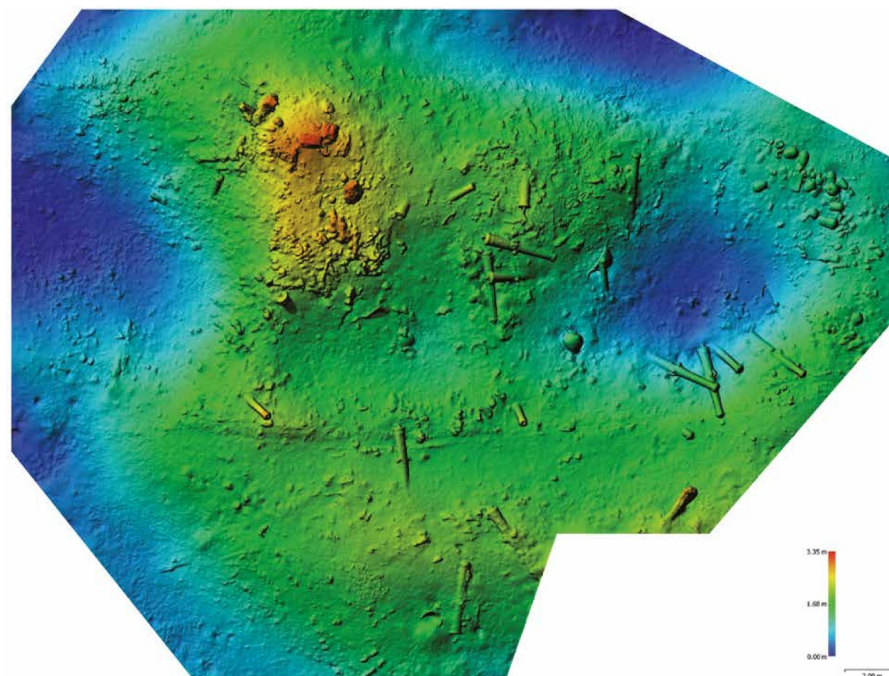
A perspective view of the
action at Cartagena (1741)
British Library

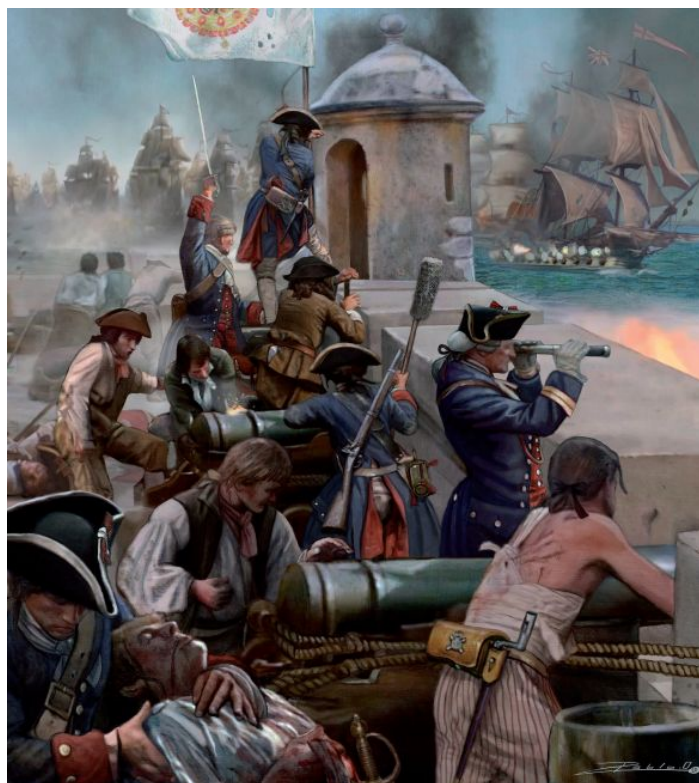


Most humbly inscribed to the Rt. Honble. Sir Charles Wager. First lord comissioner of the admiralty, this plan of the harbour, town and several forts of Cartagena (1741) Bnf Gallica

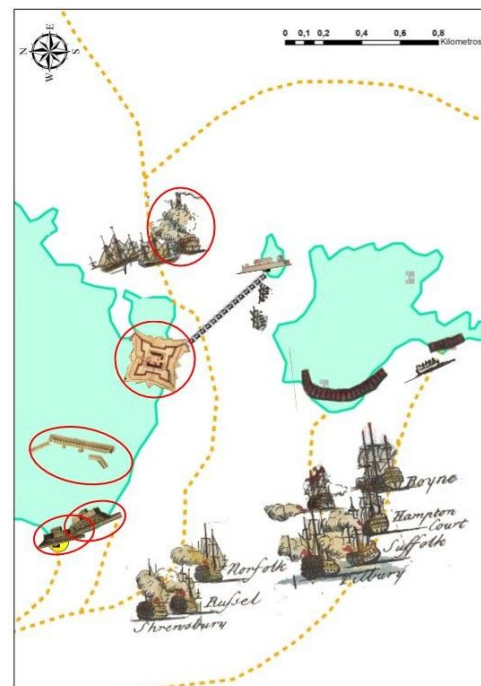
Shipwreck San Felipe - 1741 (Canal de Bocachica)

Declaration of the archaeological protected area archaeological context Galleon San José





Desperta Ferro



Bateria Santiago



Bateria San Felipe



Bateria Inglesa



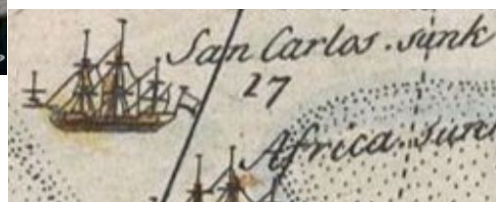
Navío San Felipe



Fuerte San Luis



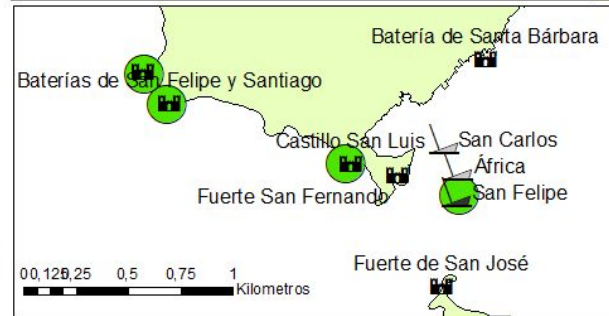
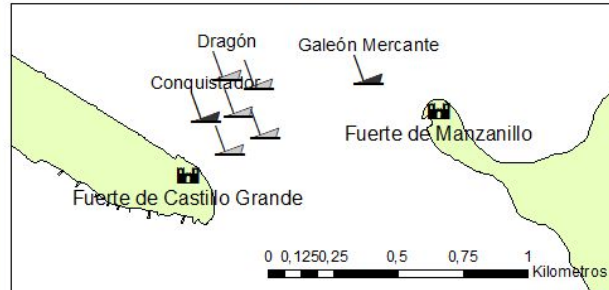
Fuerte San José



Archaeological Potential of Cartagena de Indias



Paisaje Marítimo de la Guerra de Cartagena de Indias



Convenciones

Embarcaciones

-  No Identificadas
-  Identificadas
-  Ciudad amurallada

Fortificaciones

-  No Identificadas
-  Identificadas
-  Intervenciones arqueológicas

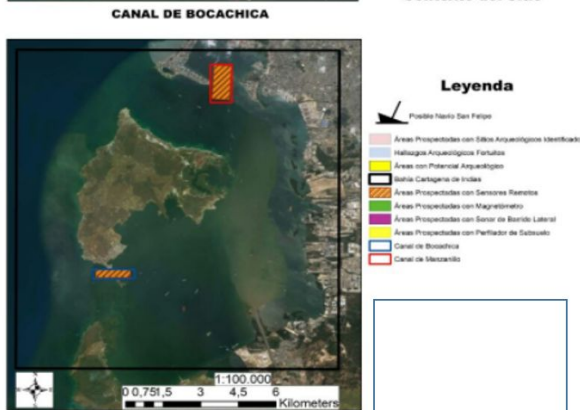
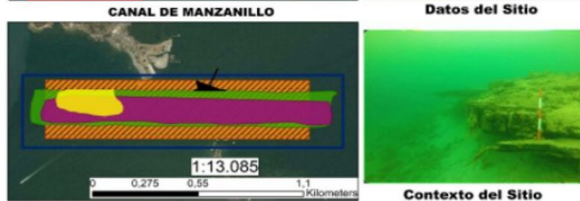
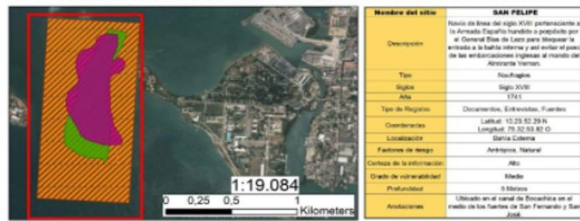


WORLD HERITAGE
SINCE 1984

Underwater Archaeology in Historical Shipwrecks

Two Cases from 2015: Manzanillo and Bocachica Shipwrecks

MAPA ARQUEOLÓGICO SUBACUÁTICO BAHÍA DE CARTAGENA DE INDIAS



Leyenda

- Proyecto Nautico San Felipe
- Áreas Prospectadas con Sitios Arqueológicos Identificados
- Hallazgos Arqueológicos Potenciales
- Áreas con Potencial Arqueológico
- Bahía de Cartagena de Indias
- Áreas Prospectadas con Sismos Resaca
- Áreas Prospectadas con Magnetismo
- Áreas Prospectadas con Sensor de Borde Lateral
- Áreas Prospectadas con Perfilador de Suelo
- Canal de Bocachica
- Canal de Manzanillo

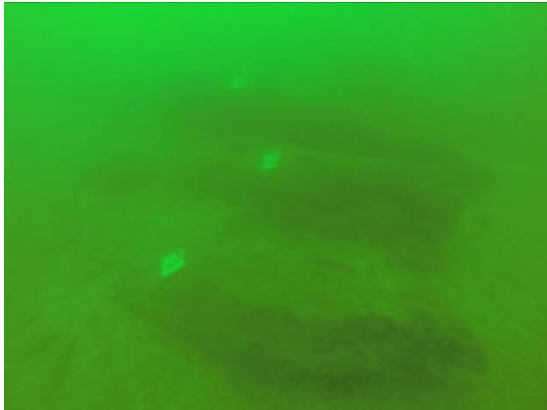


Ubicación de los naufragios en la Bahía de Cartagena de Indias



Underwater Archaeology in Historical Shipwrecks

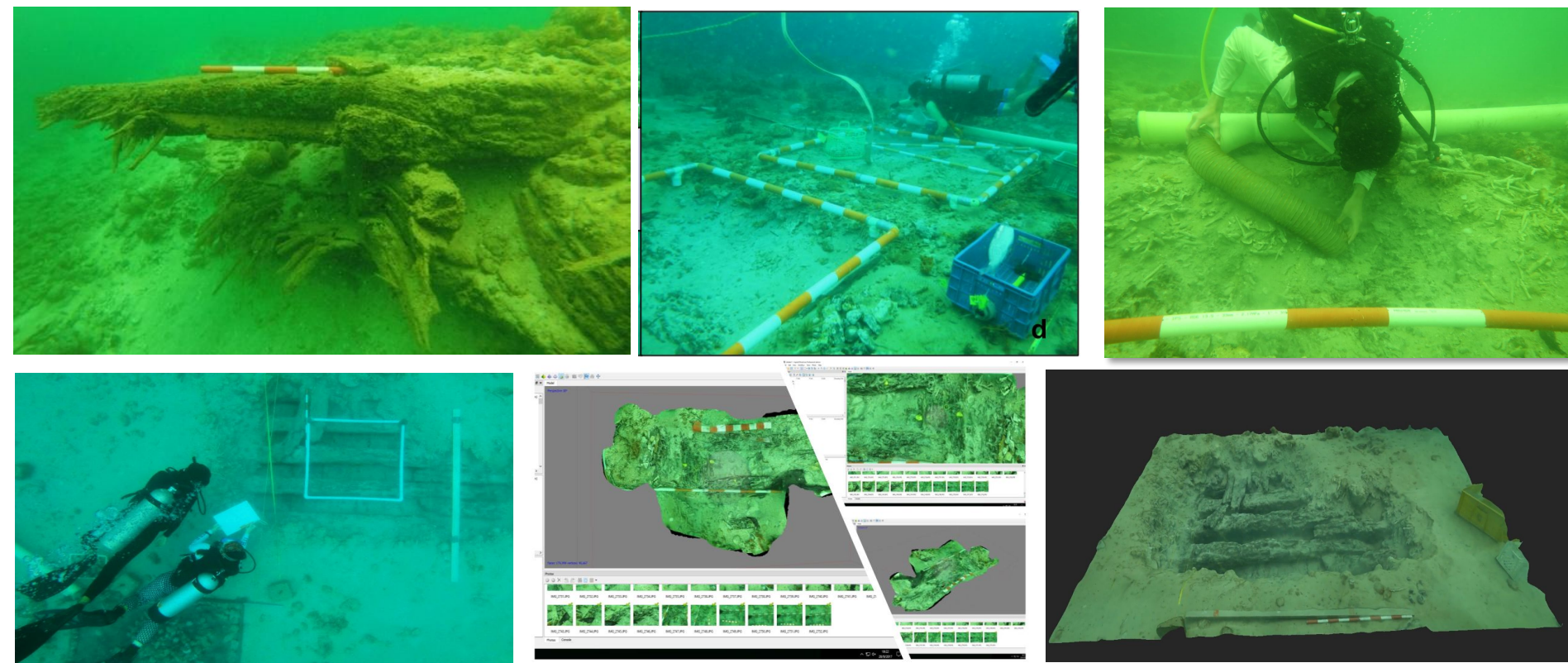
Manzanillo Shipwreck: Merchant Ship, 1741



16 mts depth: Wooden structures (almost 50 elements) related with the keel, the keelson, and floor timbers; one isolated iron cannon

Underwater Archaeology in Historical Shipwrecks

Bocachica Shipwreck: San Felipe Ship of the Line, 1741

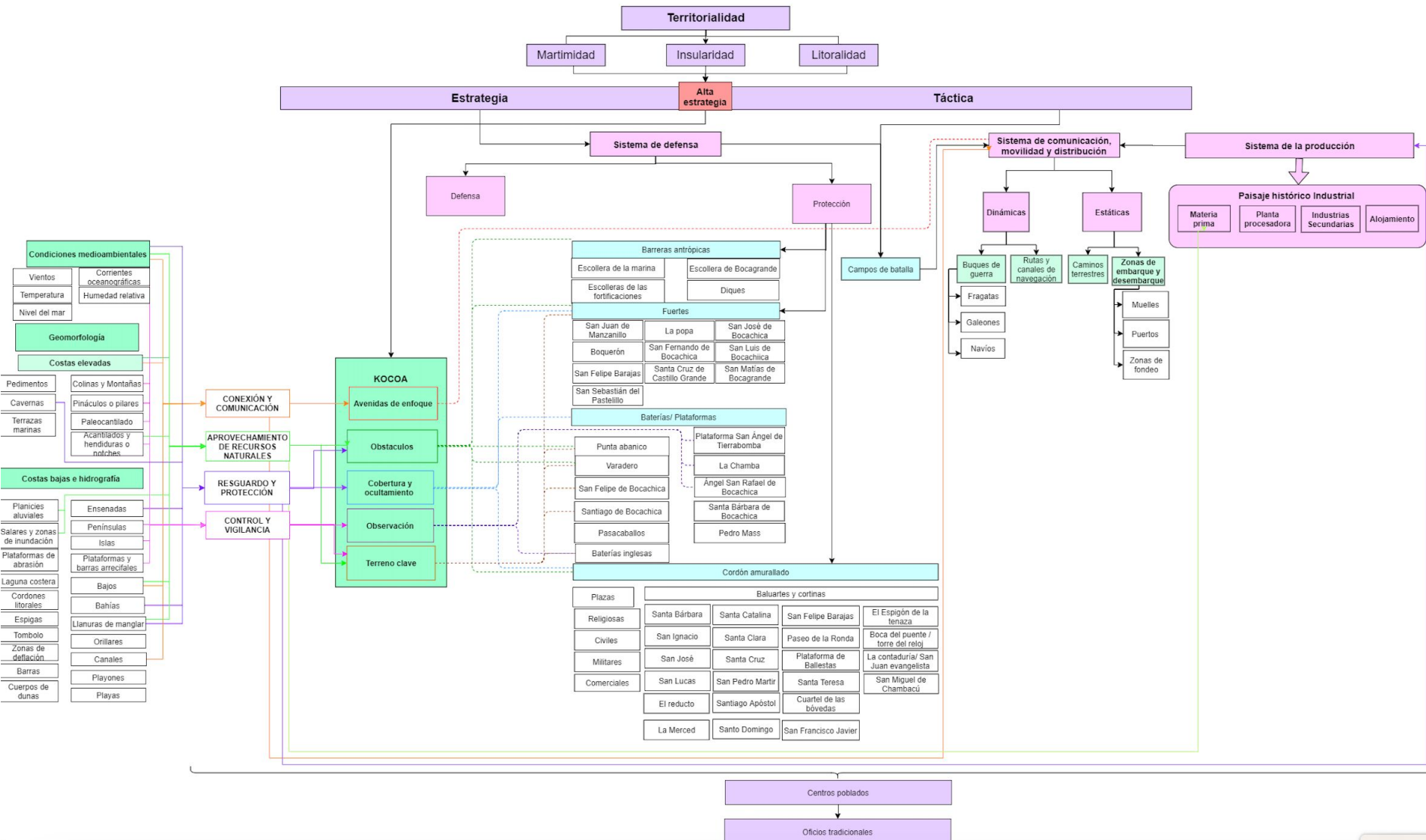


5 mts depth: Structural and other wooden elements (keel, keelson, frames, internal and external planking), ballast stones, ceramic fragments, lead sheets, fastening elements

Natural resources and local communities



Paisaje Fortificado de Cartagena de Indias (Bolívar, Colombia)



Community participation in the management of climate change impacts on the maritime cultural heritage of Cartagena de



How does Climate Change affect our Cultural Heritage?



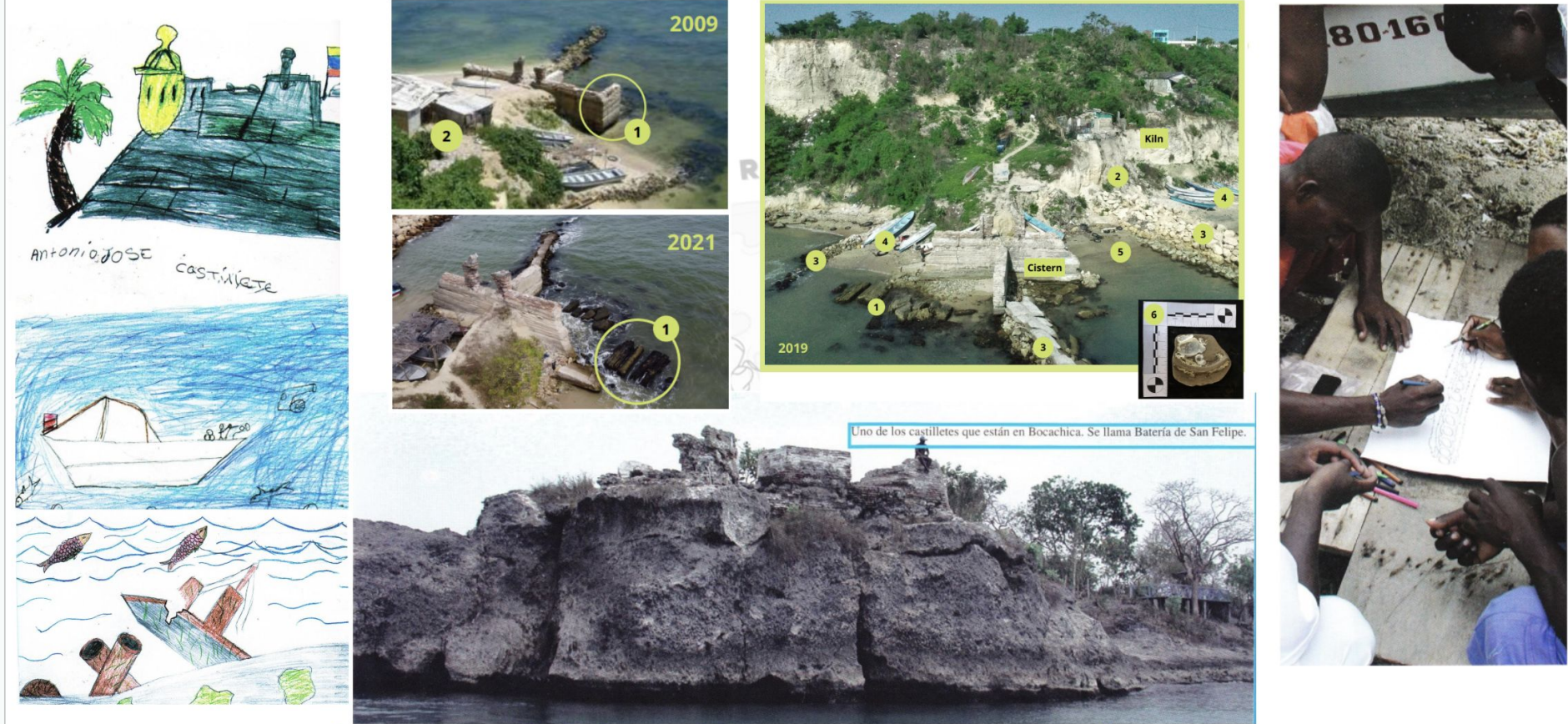
Universidad
de Cartagena
Fundada en 1827



NATIONAL
GEOGRAPHIC
SOCIETY

ICOMOS
international council on monuments and sites

What can we do about it?



understand, identify, measure and propose



Funded by The National Geographic Society

Devolving decision making to the lowest appropriate level: The importance of the community



Funded by The National Geographic Society

Addressing structural inequalities faced by women, youth, children, people with disabilities, people who are displaced, Indigenous Peoples and marginalized ethnic groups



Funded by The National Geographic Society

Investing in local capabilities to leave an institutional legacy:



Capacity building at the local level



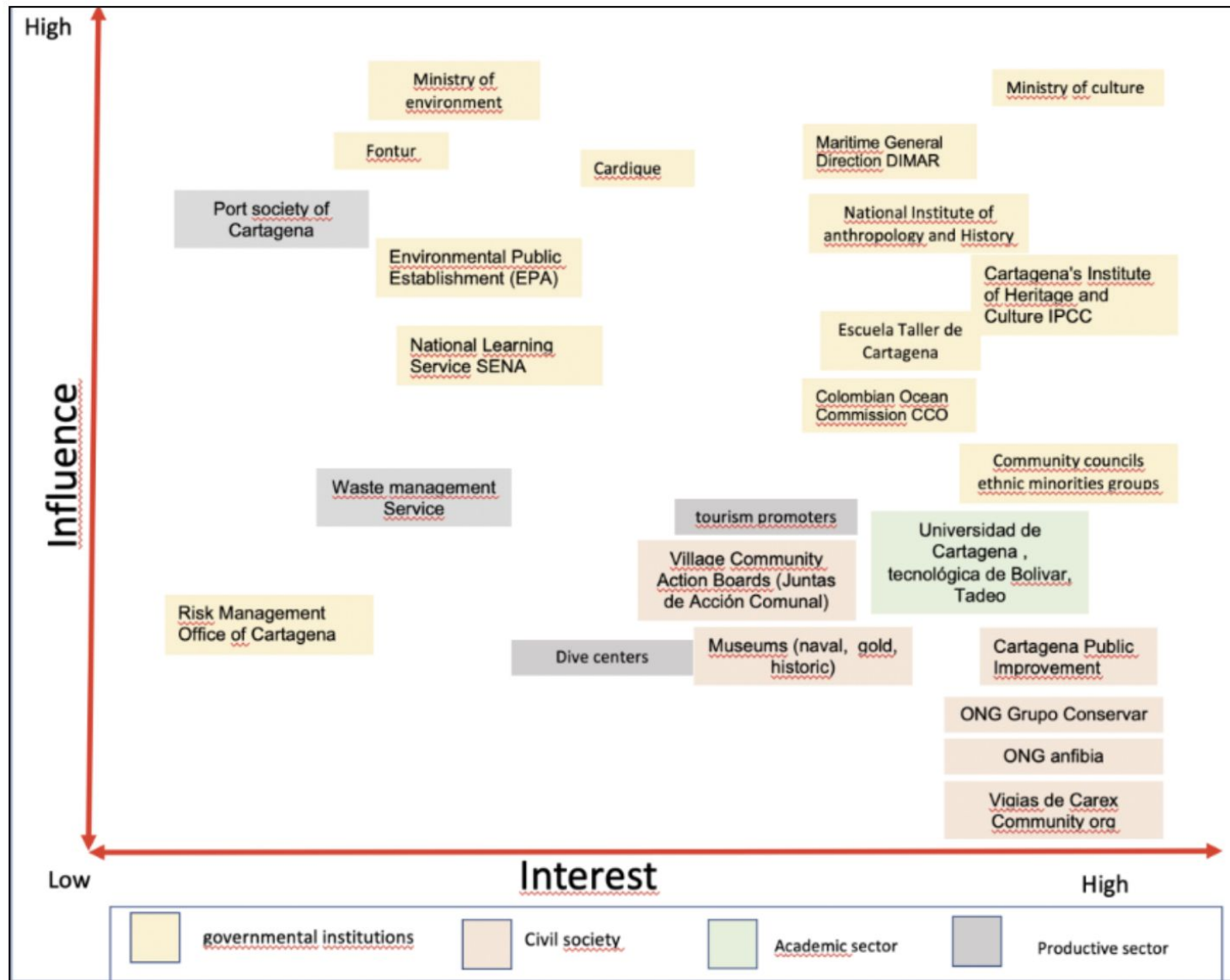
Funded by The National Geographic



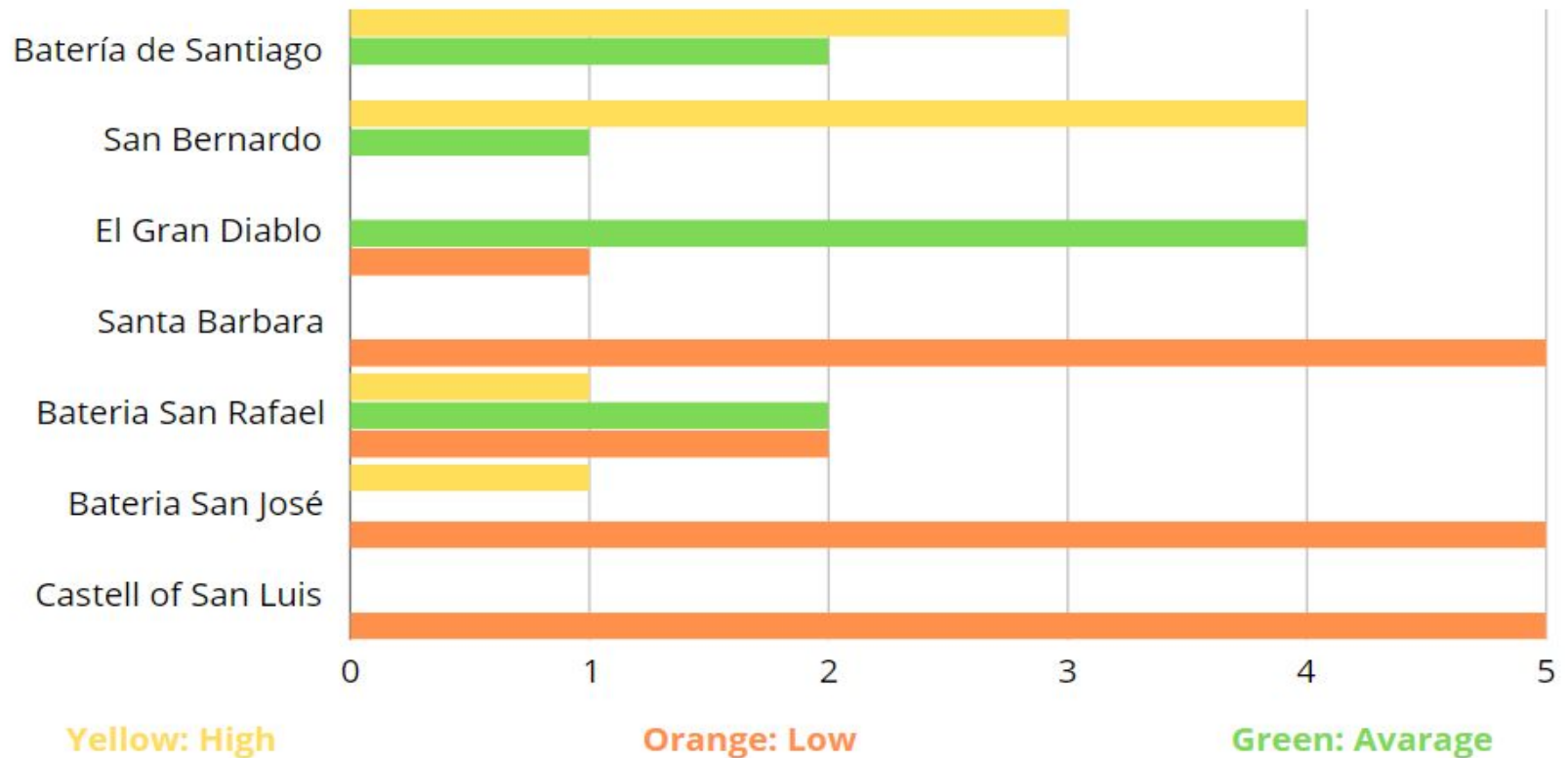


Locally Led Adaptation Principles for Locally Led Adaptation: Local Knowledge to understand the context

Identifying Key Stakeholders in Cartagena de Indias: Enhancing Stakeholder Engagement



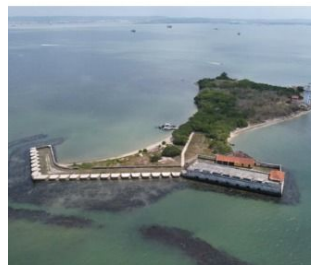
Bar Chart: Classification and Importance of Heritage Sites, Ranked by Levels of Significance



Castell of San Luis



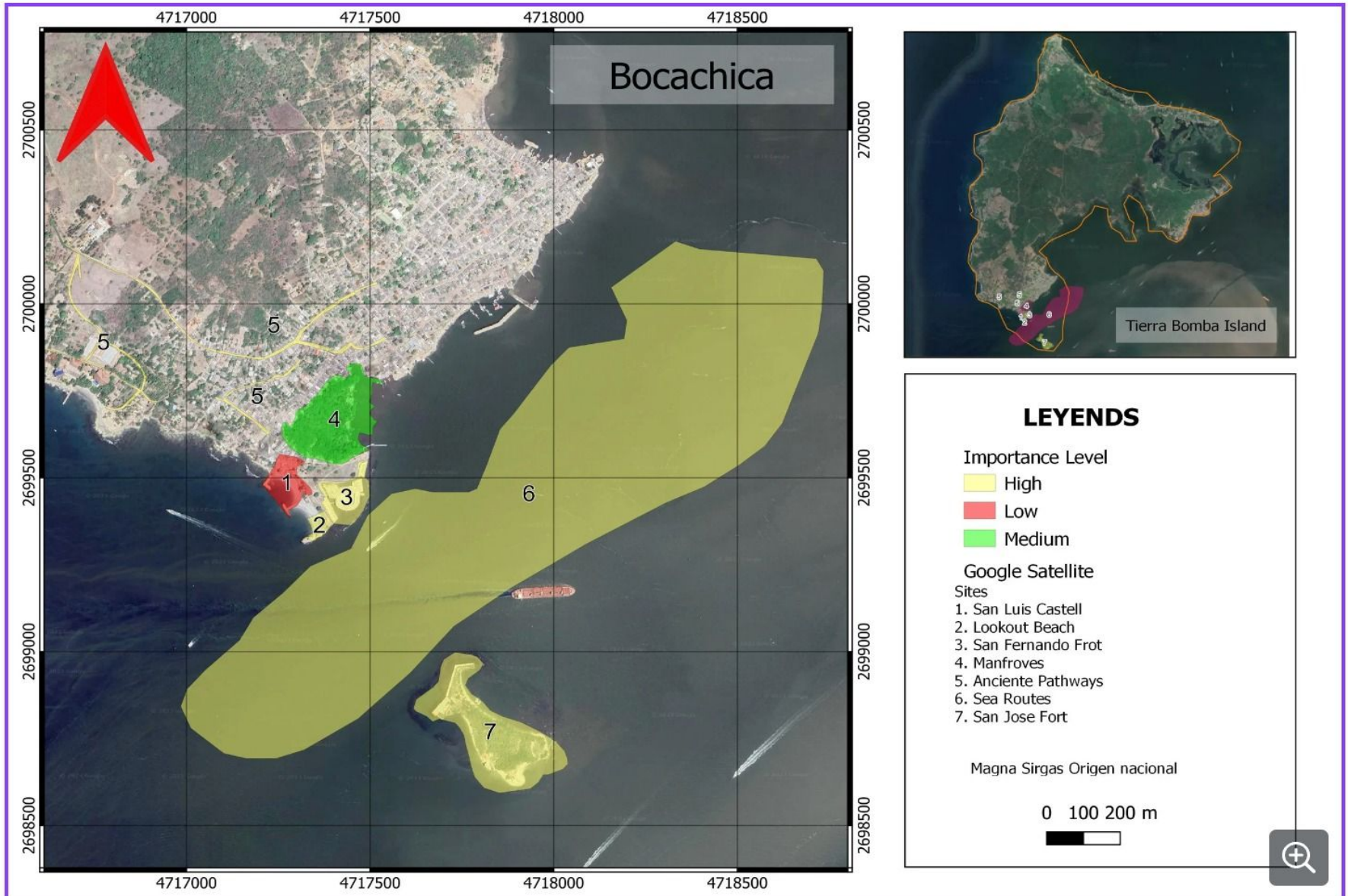
The Fort of San José



The Fort of San Fernando



Map of Bocachica with the Local Community's Assessment of Historic Sites and Everyday Places



Map of the Different Values in Historical Places and Sites in Bocachica"



LEYENDS

Values Types

- Aesthetic values or phenomena
- Community value
- Ecological Value
- Military architecture
- Subsistence value

Google Satellite

Sites

1. San Luis Castell
2. Lookout Beach
3. San Fernando Frot
4. Manfroves
5. Anciente Pathways
6. Sea Routes
7. San Jose Fort

Magna Sirgas Origen nacional





PHase 1

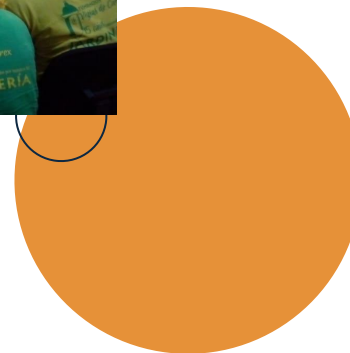
Phase 2

¿Blue Collaboratory?

Knowledge Co-production with Coastal Communities in Cartagena de Indias, Colombia for the understanding of Climate Change Impacts on Maritime Cultural Heritage.



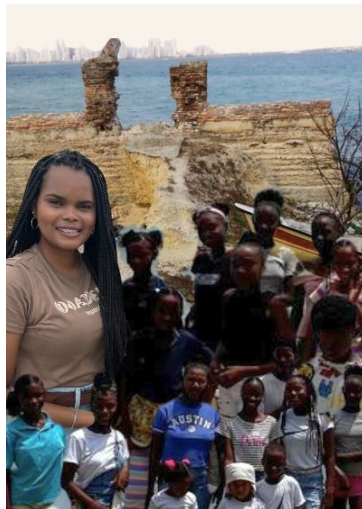
Universidad
de Cartagena
Fundada en 1827



General objective

To develop the pilot phase of a methodological proposal for the identification and analysis of the impacts of climate change on the Cultural Interest Assets that are part of the Bay of Cartagena, based on a co-participatory approach that allows the integration of the knowledge of local communities.

Phase 1



Generate scenarios for training and community strengthening supported by the use of virtual tools.

01



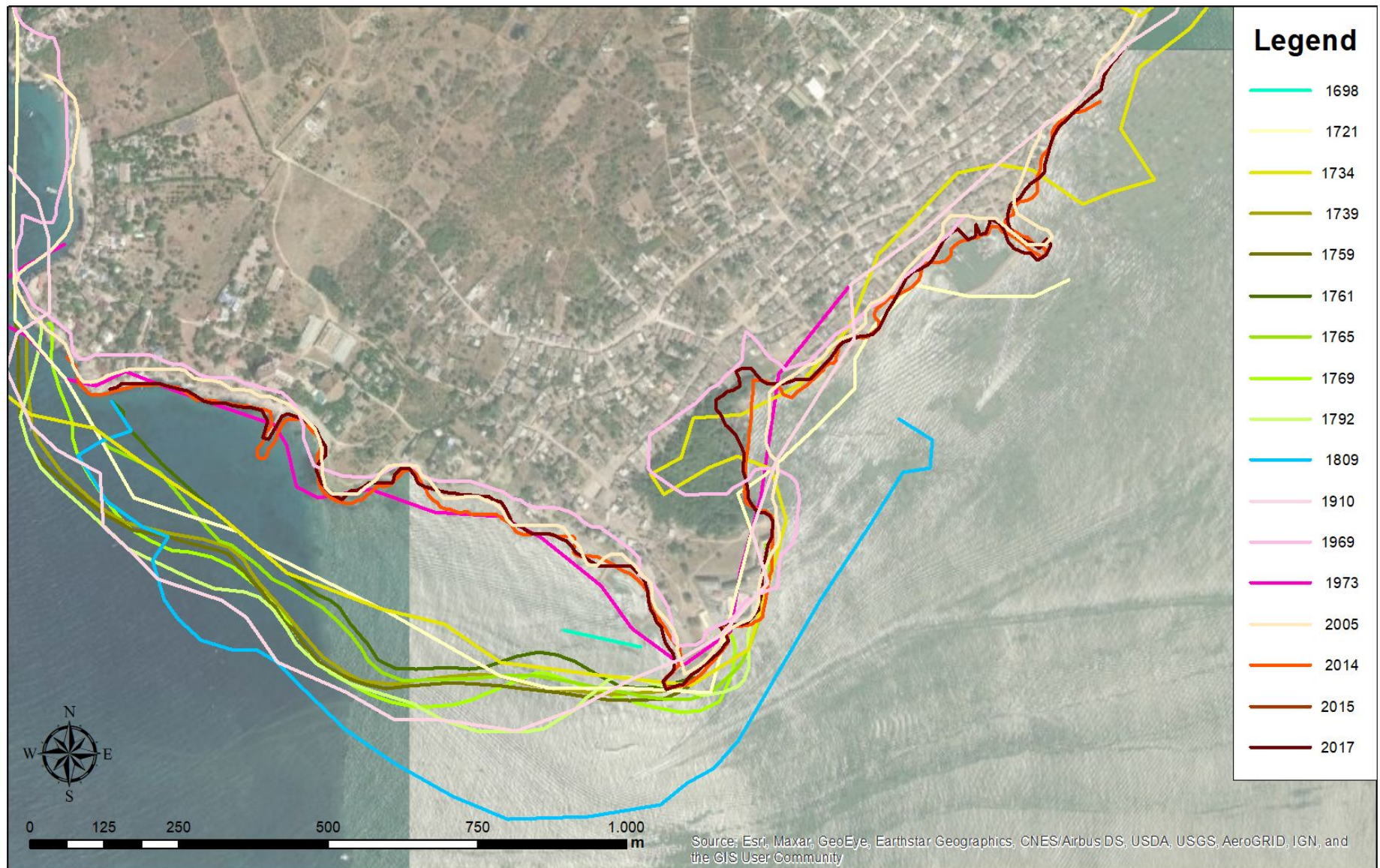
Develop a communication strategy based on the co-creation of content that integrates the knowledge and skills of local communities.

03

Designing participatory mechanisms for measuring the impacts of climate change on Cultural Heritage Sites.

02

Phase 1



Changes in the coastline of the Bocachica Sector between 1698 - 2022 from the superposition of historical cartography and contemporary satellite photographs (Del Cairo et al., 2022).



Affectations at Fort San José due to sea level changes.



colaboratorioazul

Seguir

Enviar mensaje



13 publicaciones

114 seguidores

20 seguidos

Somos un laboratorio co-participativo que busca generar conocimiento sobre el cambio climático y su impacto sobre el Patrimonio Cultural.



NEWS



Investigadores...



Día 2



Cápsulas cam...



Colaboratorio Azul

26 amigos • 16 amigos en común

Amigos

Mensaje



Publicaciones

Información

Amigos

Fotos

Videos

Registros de visitas

Más

Detalles

Foto

Ver todas las fotos



Escribe algo a Colaboratorio...

Foto/video

Etiquetar personas

Sentimiento/actividad

Publicaciones

Colaboratorio Azul

30 de septiembre a las 15:45

La comunidad isleña, en su mayoría afro, es testigo de los cambios...



Cambio Climático Ctagena

~Jhoser

Buenos días para todos

13:25

Envío las fotos de las mediciones que se hicieron en San José

13:25

3



13:25



13:25



13:25



13:25



13:25



13:25



~Donairo

Buenos días

13:34



Carlos Del Cairo

Hola buenos días !!!! muchas grcias Jose !!!!

13:34

Hola Donairo

13:34

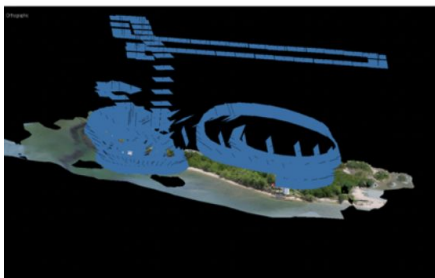


~Donairo

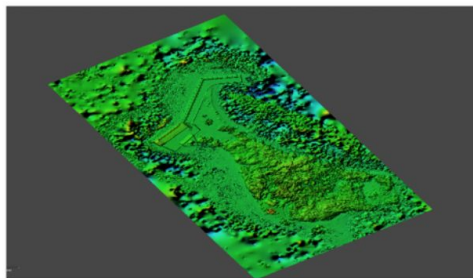
+57 321 9826176

Fase 1





Cámaras



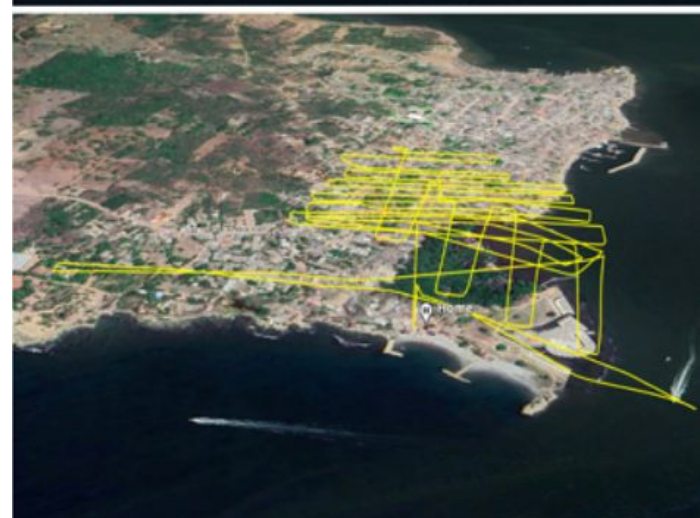
DEM



Orto



3D





[Home](#)

[Equipo](#)

[Actividades](#)

[Resultados](#)

[Aplicativo](#)

[Enlaces de interés](#)

[Contáctanos](#)



ColaboraRtorio Azul

Proyecto para la identificación co-participativa de los impactos del cambio climático sobre el Patrimonio Cultural de Cartagena de Indias, Colombia.

Un proyecto de la [Fundación Colombia Anfibia](#)

THANK YOU



NATIONAL
GEOGRAPHIC
SOCIETY

ICOMOS
international council on monuments and sites

[Copyright](#) / [Privacy](#) / [Ownership](#)